TETRA TECH

June 4, 2021

Ms. Shari Kolak
Task Order Contracting Officer's Representative
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604-3507

Subject: **Health and Safety Plan**
East Troy Contaminated Aquifer Site, Troy, Miami County, Ohio
DES Contract 68HE0318D0014
Task Order 68HE0521F0054

Dear Ms. Kolak:

Tetra Tech, Inc. prepared the enclosed health and safety plan (HASP) for the East Troy Contaminated Aquifer (ETCA) Superfund site, in Troy, Miami County, Ohio, under the U.S. Environmental Protection Agency (EPA) CLIN2 Contract for Region 5, Contract No. 68HE0318D0014, Task Order (TO) No. 68HE0521F0054. Under this TO, Tetra Tech is performing remedial design (RD) activities at the ETCA site in accordance with EPA's Task Order Request.

If you have any questions about this submittal, please call me at (312) 201-7748.

Sincerely,

R. Mastrolonardo

Ray Mastrolonardo, PG
Project Manager

Enclosure

cc: Shelia Dolan, EPA Task Order Contracting Officer
Natalie Topp, EPA Contract Specialist
Linda Martin, EPA Project Officer
Mindy Gould, Tetra Tech, Inc. Regional Coordinator

Tetra Tech, Inc.
1 S. Wacker Drive, 37th Floor, Chicago, IL 60606
Tel 312-201-7700 Fax 312-201-0031 tetratech.com

Site Name: East Troy Contaminated Aquifer Site	**Site Contact:** Ray Mastrolonardo	**Telephone:** (312)-201-7748
Location: Troy, Ohio	**Client Contact:** Shari Kolak	**Telephone:** (312) 886-6151
EPA ID No. OHSFN0507962	**Prepared By:** Rachel Houle	**Date Prepared:** June 1, 2021
Project No. 103G6401001.0001.1.2	**Dates of Activities:** Sep 2021 to Sep 2022 (HASP is not valid for periods longer than 12 months)	**Emergency Response** ☐ Yes ☒ No

Objectives:

Conduct a preliminary design investigation (PDI) to further delineate extent of the VOC-contaminated soil by:

1) Conducting a geophysical survey
2) Conducting soil sampling using direct-push technology
3) Conducting soil sampling using hollow-stem auger drilling

Site Type: *Check as many as applicable.*

☐ Active	☐ Landfill	☒ Inner-City
☒ Inactive	☐ Railroad	☐ Rural
☐ Secured	☒ Residential	☐ Remote
☒ Unsecured	☒ Industrial	☐ Other (*specify*)

Project Scope of Work and Site Background

The ETCA site is in the City of Troy, Miami County, Ohio. The City operates two water supply wellfields (the East wellfield and the West wellfield) located on the east bank of the Great Miami River. Since 1988, volatile organic compounds (VOC) have been consistently detected in raw water from production wells in the City of Troy's East wellfield. VOC concentrations are below the maximum contamination levels (MCLs) established by the Safe Drinking Water Act. Cis-1,2-dichloroethene (cis-1,2-DCE) is the compound detected most frequently in the East wellfield. Tetrachloroethene (PCE), trichloroethene (TCE), and cis-1,2-DCE have been detected in samples from production wells in the West wellfield, which is being addressed as a separate site. The "East Water Street plume" originates in the vicinity of the former Hobart Brothers Cabinet Company (Hobart) and trends southeastward. The "Residential plume" originates near Walnut Street adjacent to the former Troy One Hour Cleaners and also trends southeastward, parallel to and eventually comingling with the East Water Street plume.

The Residential plume lies beneath a predominantly residential area southwest of East Main Street. This plume primarily contains PCE at concentrations greater than 1,000 micrograms per liter (µg/L) in the source area, with TCE and cis-1,2-DCE occasionally detected at lower concentrations. The Residential plume flows beneath an area of mainly older, single-family residences mixed with a few businesses, churches, and schools. This is also the area being considered for VI mitigation systems.

The East Water Street plume, extends from the rear of the former Hobart property at 301 East Water Street, extends beneath the Hobart building, and then continues southeast beneath and parallel to East Water Street. This plume lies beneath a mixed industrial, residential, and institutional use area. PCE, TCE, and cis-1,2-DCE are present in this plume. Total VOC concentrations in this plume are generally lower than those detected in the Residential plume. Soil and groundwater contamination have been detected on the Hobart property, with the highest VOC concentrations in soil detected in an apparent source area in the rear of the property.

The remedial investigation (RI) report was completed in January 2015. The RI identified multiple contaminant sources, further delineated the two groundwater contaminant plumes, and evaluated multiple exposure pathways. EPA conducted a focused feasibility study (FFS) that established remedial action objectives (RAO) and evaluated remedial alternatives. The RAOs prioritize reduction of exposure risk and decrease of contaminant mass in the groundwater source areas. In 2018, EPA issued an interim action Record of Decision (ROD) addressing (1) areas of soil contamination that exceed human health risk standards and coincide with apparent groundwater contaminant source areas, (2) the Residential plume groundwater source area, and (3) potential VI in areas overlying the Residential plume. The scope of this remedial design (RD) addresses only the East Water Street soil source area and VI mitigation. It does not address the Residential plume groundwater source area.

Predesign investigation (PDI) activities are not planned for the VI mitigation portion of the RD. It is assumed that at most, visual reconnaissance may be conducted to verify information needed to design the VI mitigation. A PDI will be conducted at the East Water Street soil source area to acquire data necessary to support the RD. The PDI will require a geophysical survey and soil sampling at the East Water Street soil source area.

Health and Safety Approver Comments or Additional Instructions:

This HASP SHALL be revised prior to each site visit as appropriate to ensure that the hazards associated with the assigned tasks have been identified and proper safety controls implemented. The entire area should already have been adequately surveyed and marked for ALL utilities and no intrusive work is to be conducted within the margin of error of the survey. ONLY contractors (i.e. drilling) that have been pre-approved by Tetra Tech and (if required) the client may be utilized. Further, subcontractors MUST complete their own HASP and/or provide JSA/AHAs for EACH of their assigned tasks. All information provided in this HASP (and any applicable attachments) has been reviewed and made site-specific by proper hazard identification and control techniques. This method of risk assessment is done in the field at the time of work being conducted. Changes to this HASP (or AHA) shall be documented and later approved by a health and safety manager.

Ensure that the entire area has been adequately surveyed and marked for ALL utilities and that no intrusive work is conducted within the margin of error of the survey. ONLY subcontractors that have been pre-approved by Tetra Tech and (if required) the client may be utilized

Minimum PPE SHALL include: safety glasses, hardhats, Nitrile gloves when sampling or handling chemicals, leather gloves for lifting, ear plugs or muff with minimum 27 noise reduction rating (within 20 feet of operating drills or near heavy equipment), steel-toed boots and Class 2 or better high-visibility vest.

All personnel SHALL wear face-coverings at all times when onsite or in the public. A supply of soap and water, alcohol-based hand sanitizer (ABHS), and/or sanitizing wipes must be available in the vehicle. Social distancing should be maintained for everyone, including the client and your coworkers. DO wash your hands with soap and water for at least 20 seconds or use ABHS PRIOR to donning and AFTER doffing Nitrile gloves. You may prefer to wear two pair of Nitrile gloves and keep the inner pair on continuously while replacing the outer pair after completing a sampling event.

- See attached SWP 5-55, Infectious Disease Guidance, Tetra Tech EMI COVID-19 Response and Contingency Plan, and AHA with Procedures for Working in Areas Potentially Impacted by COVID-19.
- All site personnel must perform self-evaluations each day PRIOR to work. If any new symptoms or if any potential exposures have occurred, the personnel must STAY HOME or in the hotel. Employees will be asked to voluntarily report their health condition at the start of the field operation day, and if there are any concerns about their health, they will be requested to consider seeking medical advice before performing additional work.
- Social distancing will be practiced at the site. Because of the nature of the work, occasional contact may be necessary, but should be limited to the minimum amount possible. Generally, employees and others in the field will attempt to maintain a minimum 6 feet of separation.
- To aid in this, direct hand-offs of equipment or samples will be avoided. Equipment or samples will be set at a designated point for transfer, with one person dropping the material off and walking away, and then afterward, another person picking it up.
- Prior to the start of the workday, personnel and visitors will maintain social distancing by remaining in their vehicles or waiting outside (weather permitting). Personnel breaks, including lunch, may occur outside (weather permitting) or in personal vehicles to maintain social distancing.
- For situations where the minimum 6 feet of separation cannot be met, personnel will don either cloth face-coverings, face mask, or respirator to limit the dispersion of respiratory droplets.
- Weather permitting, all site meetings with personnel and visitors will take place outside maintaining social distancing. If the meeting is unable to take place outside, 1) personnel and visitors will remain in their personal vehicles until the meeting can take place outside, 2) a conference call will take place in lieu of an in-person meeting, or 3) the meeting information will be relayed over the phone to affected persons.
- All personnel will mobilize to the site in separate vehicles.
- Decontamination stations will be maintained on site, including supplies of soap and water, alcohol-based hand sanitizer (ABHS), and sanitizing wipes. Personnel may maintain a portion of ABHS and sanitizing wipes in their separate vehicles.
- High-touch areas and items will be disinfected daily on site with all-purpose cleaner verified to kill the COVID-19 virus or alcohol wipes. These areas include but are not limited to door handles, equipment (high-volume air samplers, Ludlums), trash receptacles, equipment cases, gates and locks, etc.
- DO NOT shake hands or touch anyone.

Health and Safety Plan Approver Signature: Chris Draper **Date:** APPROVED By Chris Draper at 10:15 am, Jun 03, 2021

Note: A minimum of two persons with appropriate training and medical surveillance must be on site for any fieldwork subject to Level 2 HASP requirements.
Note: A detailed site sketch or figure may be included on Page 11 of 13.

Initial Isolation and Protective Action Distances (for emergency response operations only):
Establishment of Work Zones; including exclusion, contamination reduction, and support zones; is required for ALL HAZWOPER projects. For heavy equipment (i.e. drilling operations), exclusion zones will established around each equipment or drilling location based on site conditions and or noise levels (DCN 2-04, Hearing Conservation Program) at drilling operations (i.e. a circular exclusion zone based on noise levels >85 dbA from the drill rig or a minimum of 20 feet around the rig, whichever is greater). Work zones will be delineated using cones, barrier tape or similar visual indicators.

ALL investigation-derived waste shall be drummed and remain onsite pending characterization for subsequent disposal.

Spill control shall be conducted in accordance with the requirements of SWP 5-14, *Spill and Discharge Control Practices*.

Wind Speed and Direction (Approach from upwind)		Temperature (°F)	Relative Humidity (%)	Probability of Precipitation (%)	Weather Forecast (such as partly cloudy, snow, etc.)
Speed (mph):	**From Direction:**				

On-Site Supplies: ☒ First Aid Kit ☐ Fire Extinguisher ☐ Air Horn ☐ Oral Thermometer ☐ Noise Dosimeter

Known or Anticipated Site Hazards or Concerns: (Hazards covered by existing Safe Work Practices are listed on the next page)

☒ Work on active roadway	☒ Overhead utilities	☐ Energized electrical systems
☐ Onsite laboratory	☒ Buried Utilities	☐ Portable hand tool use
☐ Explosion or fire hazard	☐ Surface or underground storage tanks	☐ Portable electrical tool use
☐ Oxygen deficiency	☒ General slips, trips, falls	☐ Machine guarding
☐ Unknown or poorly characterized chemical hazards	☒ Uneven, muddy, rugged terrain	☐ Portable fire extinguisher use
☐ Inorganic chemicals	☐ Lift (man lift, cherry picker) use	☐ Driving commercial vehicles
☒ Organic chemicals	☐ Industrial truck (forklift) use	☒ Driving personal vehicles
☐ Chemical warfare materiel	☐ Wood or metal ladder use	☐ Scientific diving operations
☐ Compressed Gas Cylinders	☐ Dangerous goods shipped by air	☐ Injury and Illness Prevention Program (California only)
☐ Asbestos	☐ Elevated work (over 6' high)	☐ Ergonomics (California only)
☐ Respirable particulates	☒ Heavy equipment use or operation	☐ Work in strip or shaft mines
☐ Respirable silica	☐ Construction work	☐ Client-specific safety requirements (attach to HASP)
☐ Blasting and explosives	☐ Excavation or trenching	☐ ATV use
☐ Non-ionizing radiation (lasers, radiofrequencies, UV)	☐ Benching, shoring, bracing	☐ Methamphetamine lab
☐ Ionizing radiation (alpha, beta, gamma, etc.)	☐ Scaffold use	☐ Working over or near water
☒ Heat stress	☒ High noise	☐ Mold
☒ Cold stress	☐ Grinding operations	☒ *Other (insert)*

Explosion or Fire Potential: ☐ High ☐ Medium ☒ Low ☐ Unknown

Chemical Products Tetra Tech EM Inc. Will Use or Store On Site: (Attach a Material Safety Data Sheet [MSDS] for each item.)

☒ Alconox or Liquinox	☐ Calibration gas (Methane)	☐ Hydrogen gas	☐ Isopropyl alcohol
☐ Hydrochloric acid (HCl)	☒ Calibration gas (Isobutylene)	☐ Household bleach (NaOCl)	☐ HazCat Kit
☐ Methanol (MeOH)	☐ Calibration gas (Pentane)	☐ Sulfuric acid (H_2SO_4)	☐ Mark I Kits (*number?*) _____
☐ Sodium hydroxide (NaOH)	☐ Calibration gas (4-gas mixture)	☐ Hexane	☐ Other (*specify*) _____

WARNING: Eyewash solution shall be readily available on ALL projects where corrosives (acids or bases) are used, including sample preservatives

Applicable Safety Programs and Safe Work Practices (SWP). Attach to HASP:

- ☐ DCN 4-03 Demolition and Decontamination
- ☐ DCN 4-05 Trenching and Excavation Safety
- ☐ DCN 4-08 Asbestos Protection Program
- ☐ DCN 4-09 Haulage and Earth Moving
- ☐ DCN 4-10 Lead Protection Program
- ☒ SWP DCN 5-01 General Safe Work Practices
- ☒ SWP DCN 5-02 General Safe Work Practices HAZWOPER
- ☐ SWP DCN 5-03 Safe Work Practices for Office Employees
- ☒ SWP DCN 5-04 Safe Drilling Practices
- ☒ SWP DCN 5-05 Safe Direct Push (GeoProbe) Practices
- ☒ SWP DCN 5-06 Working Over or Near Water
- ☐ SWP DCN 5-07 Use of Heavy Equipment
- ☐ SWP DCN 5-08 Special Site Hazards (Firearms, Remote Sites, Mines, aircraft, etc.)
- ☐ SWP DCN 5-09 Safe Electrical Work Practices
- ☐ SWP DCN 5-10 Fall Protection Practices
- ☐ SWP DCN 5-11 Portable Ladder Safety
- ☐ SWP DCN 5-12 Drum and Container Handling Practices
- ☐ SWP DCN 5-13 Flammable Hazards and Ignition Sources
- ☐ SWP DCN 5-14 Spill and Discharge Control Practices
- ☒ SWP DCN 5-15 Heat Stress
- ☒ SWP DCN 5-16 Cold Stress
- ☒ SWP DCN 5-17 Biohazards
- ☐ SWP DCN 5-18 Underground Storage Tank Removal Practices
- ☒ SWP DCN 5-19 Safe Lifting Procedures
- ☐ SWP DCN 5-22 Hydrographic Data Collection
- ☐ SWP DCN 5-23 Permit-Required Confined Space Entry Practices
- ☐ SWP DCN 5-24 Non-Permit-Required Confined Space Entry Practices
- ☒ SWP DCN 5-26 Prevention of Sun Exposure
- ☐ SWP DCN 5-27 Respirator Cleaning Practices
- ☐ SWP DCN 5-28 Safe Use Practices for Use of Respirators
- ☒ SWP DCN 5-35 Underground Utilities, including 5-35F, Ground Disturbance Permit
- ☒ SWP DCN 5-36 Drill Rigs

Tasks Performed At Job Site that are NOT Covered by SWPs

NOTE: Many AHA's can be found on the Health & Safety intranet site at: *https://tetratechinc.sharepoint.com/:u:/r/sites/OU-EMI/SitePages/Health%20%26%20Safety/HASPs,-SDSs,-%26-AHAs.aspx*

- ☒ Observations near drill rigs and heavy equipment
- ☒ Geophysical and Land Surveying
- ☒ Direct-Push Apparatus Sampling
- ☒ Hollow Stem Auger Sampling
- ☒ IDW and Other Management

Tetra Tech Employee Training and Medical Requirements:

Basic Training and Medical

- ☒ Initial 40 Hour Training
- ☐ 8-Hour Supervisor Training (one-time)
- ☒ Current 8-Hour Refresher Training
- ☒ Current Medical Clearance (including respirator use)
- ☒ Current First Aid Training
- ☒ Current CPR Training
- ☐ Current Respirator Fit-Test

Other Specific Training and Medical Surveillance Requirements

- ☐ Confined Space Training
- ☐ Level A Training
- ☐ Radiation Training
- ☐ OSHA 10-hour Construction Safety Training
- ☐ OSHA 30-hour Construction Safety Training
- ☐ Asbestos Awareness Training
- ☐ Asbestos B-Reader X-Ray
- ☐ Blood Lead Level and ZPP Pre, during and Post-Project
- ☐ Urinary Arsenic Level Pre and Post-Project
- ☐ Other _____
- ☐ Other _____

Materials Present or Suspected at Site	Highest Observed Concentration (specify units and sample medium)	Exposure Limit (specify ppm or mg/m^3)	IDLH Level (specify ppm or mg/m^3)	Primary Hazards of the Material (explosive, flammable, corrosive, toxic, volatile, radioactive, biohazard, oxidizer, or other)	Symptoms and Effects of Acute Exposure	Photoionization Potential (eV)
Tetrachloroethene (PCE)	72,000 ppb (Soil) – SB316 (4')	PEL: 100 ppm TWA, 200 ppm C REL: Ca Minimize workplace exposure concentrations TLV: 25 ppm TWA, 100 ppm STEL [Skin] Hazard ☒	150 ppm, Ca	Toxic	Irritation eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]	9.32
Trichloroethene (TCE)	89,000 ppb (Soil) – HOB3 (2-4')	PEL: 100 ppm TWA, 200 ppm C REL: 25 ppm TWA, 2 ppm STEL [60-minute] TLV: 10 ppm TWA, 25 ppm STEL [Skin] Hazard ☒	1,000 ppm, Ca	Toxic	Irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]	9.45
Cis-1,2-Dichloroethene (cis-DCE)	36 ppb (Soil) – SB003 (4')	PEL = 200 ppm TWA REL = 200 ppm TWA TLV = NA [Skin] Hazard ☒	1,000 ppm	Toxic	Irritation to eyes and respiratory system; central nervous system depression	9.65
Benzene	10,000 ppb (Soil) – HOB3 (10-12')	PEL = 1 ppm TWA, 1 ppm ST [Ca] REL = 1 ppm TWA, 5 ppm ST [Ca[TLV = 0.5 ppm TWA, 2.5 ppm STEL [15-minute] [Skin] Hazard ☒	500 ppm, Ca	Flammable; toxic; potential occupational carcinogen	Irritation to eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; anorexia, lassitude (weakness, exhaustion); dermatitis; bone marrow depression; [potential occupational carcinogen]	9.24
		PEL = REL = TLV = [Skin] Hazard ☐				
		PEL = REL = TLV = [Skin] Hazard ☐				

Specify Information Sources:
NIOSH Pocket Guide to Hazardous Chemicals, Accessed On-Line on May 14, 2021, On-line Address: www.cdc.gove/niosh/npg
American Conference of Governmental Industrial Hygienists (ACGIH). "Threshold Limit Values and Biological Exposure Indices for 2020."
SulTRAC. 2015. Final Remedial Investigation Report, East Troy Contaminated Aquifer Site. January 21.

Note: In the Exposure Limit column, include Ceiling (C) and Short-Term Exposure Limits (STEL) if they are available. Also, use the following short forms and abbreviations to complete the table above.

A = Air
CARC = Carcinogenic
eV = Electron volt
IDLH = Immediately dangerous to life or health
mg/m^3 = Milligram per cubic meter
NA = Not available
NE = None established
PEL = Permissible exposure limit
ppm = Part per million
REL = Recommended exposure limit
S = Soil
TLV = Threshold limit value
U = Unknown

Note: If no contingency level of protection is selected, all employees covered under this plan must evacuate the immediate site area if air contaminant levels require upgrading PPE. Level A field work requires a Level 3 HASP. This information is available on the chemical hazards page of this HASP.

Field Activities Covered Under this HASP:

Task Description	Level of Protection[1]		Date of Activities
	Primary	Contingency	
1 Conduct geophysical survey	☐ A ☐ B ☐ C ☒ D	Level C is not authorized	09/2021 to 12/2021
2 Conduct drilling, soil and groundwater sampling	☐ A ☐ B ☐ C ☒ D	Level C is not authorized	09/2021 to 12/2021
3 IDW management/drum moving	☐ A ☐ B ☐ C ☒ D	Level C is not authorized	09/2021 to 12/2021
4	☐ A ☐ B ☐ C ☐ D	☐ A ☐ B ☐ C ☐ D	
5	☐ A ☐ B ☐ C ☐ D	☐ A ☐ B ☐ C ☐ D	

Site Personnel and Responsibilities (include subcontractors):

Employee Name and Office Code / Location	Task(s)	Responsibilities
Ray Mastrolonardo - Chicago (CH)	1-2	• Project Manager: Manages the overall project, makes site safety coordinator (SSC) aware of pertinent project developments and plans, and maintains communications with client as necessary. Additionally, for projects lasting longer than one consecutive week on site, the PM is responsible for conducting one field audit using Form AF-1.
Guy Montfort - Cincinnati (CI)	1-2	• Field Team Leader: Directs field activities, makes SSC aware of pertinent project developments and plans, and maintains communications with the Project Manager and the client as necessary
TBD – Cincinnati (CI)	1-2	• Site Safety Coordinator (SSC): Ensures that appropriate personal protective equipment (PPE) is available, enforces proper use of PPE by on-site personnel and subcontractors; suspends investigative work if personnel are or may be exposed to an immediate health hazard; implements and enforces the HASP; identifies and controls site hazards when possible; communicates site hazards to all personnel; and reports any deviations observed from anticipated conditions described in the health and safety plan to the health and safety representative.
Not Applicable	NA	• Alternate Site Safety Coordinator (if any)
TBD – Cincinnati (CI)	1-2	• Field Personnel: Completes tasks, as directed by the project manager, field team leader, and SSC, and follows the HASP and all SWPs and guidelines established in the Tetra Tech, Inc., Health and Safety Manual.
TBD – Geophysical survey and direct-push/hollow-stem auger drilling	1-2	• Tetra Tech-hired subcontractor personnel on site (a subcontractor SSC MUST be identified by name): Completes tasks as outlined in the project scope of work in accordance with the contract. Participates in all Tetra Tech on-site safety meetings and follows all procedures and guidelines established in this HASP, as well as in the company health and safety plan and program.

Note:
1. See next page for details on levels of protection

NOTE: Contingency level of protection section should be completed only if the upgraded level of protection is immediately available at the job site. If no contingency level of protection is denoted, all employees covered under this HASP must evacuate the immediate site area if air contaminant levels would require an upgrade of PPE.

Protective Equipment: (Indicate type or material as necessary for each task.)

Task	Primary Level of Protection (A,B,C,D)	PPE Component Description (Primary)	Contingency Level of Protection (A, B, C, D)	PPE Component Description (Contingency)
1	D	Respirator type: None Cartridge type (if applicable): Not Applicable CPC material: Cotton or Tyvek Coveralls (optional) Glove material(s): None, Surgical Nitrile, or Work Gloves Boot material: Leather Steel-toe/Steel shank (boot covers – optional) Other: Hardhat, safety glasses, high-visibility vest, insect repellant, sun screen, hearing protection during heavy equipment and/or drill operation	N/A	Level C is NOT Authorized
2	D	Respirator type: None Cartridge type (if applicable): Not Applicable CPC material: Cotton or Tyvek Coveralls (optional) Glove material(s): None, Surgical Nitrile, or Work Gloves Boot material: Leather Steel-toe/Steel shank (boot covers – optional) Other: Safety glasses, high-visibility vest, insect repellant, sun screen, flotation device or buddy system	N/A	Level C is NOT Authorized
3	D	Respirator type: None Cartridge type (if applicable): Not Applicable CPC material: Cotton or Tyvek Coveralls (optional) Glove material(s): None Boot material: Leather Steel-toe/Steel shank (boot covers – optional) Other: Hardhat, safety glasses, high-visibility vest, insect repellant, sun screen, hearing protection during heavy equipment and/or drill operation	N/A	Level C is NOT Authorized
		Respirator type: None Cartridge type (if applicable): Not Applicable CPC material: Cotton or Tyvek Coveralls (optional) Glove material(s): None Boot material: Leather Steel-toe/Steel shank (boot covers – optional) Other: Hardhat, safety glasses, high-visibility vest, insect repellant, sun screen, hearing protection during heavy equipment and/or drill operation		
		Respirator type: None Cartridge type (if applicable): Not Applicable CPC material: Cotton or Tyvek Coveralls (optional) Glove material(s): None Boot material: Leather Steel-toe/Steel shank (boot covers – optional) Other: Hardhat, safety glasses, high-visibility vest, insect repellant, sun screen, hearing protection during heavy equipment and/or drill operation		

Respirator Notes:
Respirator cartridges may only be used for a maximum time of 8 hours or one work shift, whichever is less, and must be discarded at that time. For job sites with organic vapors, respirator cartridges may be used as described in this note as long as the concentration is less than 200 parts per million (ppm), the boiling point is greater than 70 °Celsius, and the relative humidity is less than 85 percent. If any of these levels are exceeded, a site-specific respirator cartridge change-out schedule must be developed and included in the HASP using Tetra Tech Form RP-2 (Respiratory Hazard Assessment Form)

Notes:
All levels of protection must include eye, head, and foot protection.
CPC = Chemical protective clothing
TBD = To be determined
Thermoluminescent Dosimeter (TLD) Badges must be worn during all field activities on sites with radiation hazards. TLDs must be worn under CPC.

Monitoring Equipment: All monitoring equipment on site must be calibrated before and after each use and results recorded in the site logbook				
Instrument (Check all required)	**Task**	**Instrument Reading**	**Action Guideline**	**Comments**
☐ Combustible gas indicator model:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	0 to 10% LEL	Monitor; evacuate if confined space	
		10 to 25% LEL	Potential explosion hazard; notify SSC	
		>25% LEL	Explosion hazard; interrupt task; evacuate site; notify SSC	
☐ Oxygen meter model:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	>23.5% Oxygen	Potential fire hazard; evacuate site	
		23.5 to 19.5% Oxygen	Oxygen level normal	
		<19.5% Oxygen	Oxygen deficiency; interrupt task; evacuate site; notify SSC	
☐ Radiation survey meter model:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	Normal background	Proceed	Annual exposure not to exceed 1,250 mrem per quarter Background reading must be taken in an area known to be free of radiation sources.
		Two to three times background	Notify SSC	
		>Three times background	Radiological hazard; interrupt task; evacuate site; notify RSO	
☒ Photoionization detector model: ☒ 11.7 eV ☐ 10.6 eV ☐ 10.2 eV ☐ 9.8 eV ☐ Other (specify): _____	☒ 1 ☒ 2 ☒ 3 ☐ 4* ☐ 5	< 5 ppm > 5 to 100 ppm > 100 ppm	Level D is acceptable Level C Level B	1. Use Level D PPE, 2. Obtain initial and periodic background (BG) levels, monitor source areas (such as open containers, excavations, DPT boreholes, concrete core holes, or saw cuts) using PID, 3. If PID readings 5 ppm or more above BG are observed at a source area, switch to monitor worker breathing zone (BZ) areas, 4. If PID readings > 5 ppm above BG in BZ, collect a Drager tube for vinyl chloride (see below). If VC tube is non-detect, proceed in Level D with continuous monitoring 5. If BZ readings > 10 to 100 ppm are detected, evacuate and ventilate mechanically or upgrade to Level B 6. Re-approach work area while monitoring with PID. If BG levels have been regained in the BZ, resume work in the appropriate level PPE for the readings. 7. If BZ readings remain > 10 ppm BG, remain in level B.
☒ Detector tube models: Vinyl chloride-specific Drager tube (8101721) with a lower detection limit of 0.5 ppm (if available)	☒ 1 ☒ 2 ☒ 3 ☐ 4 ☐ 5	No discernable color change ANY discernable color change	Level D is acceptable USEPA OSC will be consulted and appropriate engineering or administrative controls will be implemented or appropriate PPE, including air-purifying respirators, will be donned	The action level for upgrading the level of protection is one-half of the contaminant's PEL. If the PEL is reached, evacuate the site and notify Health & Safety.
☐ Other (specify):	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	Specify:	Specify:	

Notes:
eV= electron volt LEL=Lower explosive limit mrem=Millirem PEL=Permissible exposure limit PID = photoionization detector ppm=Part per million SSC=Site Safety Coordinator
a. Level B is required when chemical hazards are present, but are uncharacterized. Level C may be acceptable for certain tasks in some situations. If you are uncertain, consult your RSO.

Project-Specific Industrial Hygiene Requirements

OSHA-Regulated Chemicals*:

Check any present on the job site in any medium (air, water, soil)

- ☐ No chemicals below are located on the job site
- ☐ Friable Asbestos
- ☐ Silica, crystalline
- ☐ alpha-Napthylamine
- ☐ Methyl chloromethyl ether
- ☐ 3,3'-Dichlorobenzidine (and its salts)
- ☐ bis-Chloromethyl ether
- ☐ beta-Napthylamine
- ☐ Benzidine
- ☐ 4-Aminodiphenyl
- ☐ Ethyleneimine
- ☐ beta-Propiolactone
- ☐ 2-Acetylaminoflourene
- ☐ 4-Dimethylaminoazobenzene
- ☐ N-nitrosomethylamine
- ☐ Vinyl chloride
- ☐ Inorganic arsenic
- ☐ Lead
- ☐ Chromium (VI)
- ☐ Cadmium
- ☒ Benzene **(No Exceedences of Screening Criteria)**
- ☐ Coke oven emissions
- ☐ 1,2-Dibromo-3-chloropropane
- ☐ Acrylonitrile
- ☐ Ethylene oxide
- ☐ Formaldehyde
- ☐ Methylenedianiline
- ☐ 1,3-Butadiene
- ☐ Methylene chloride

* NOTE: Many states, including California and New Jersey, have chemical-specific worker protection requirements and standards for many chemicals and known or suspected carcinogens.

Emergency Contacts:	**Telephone No.**
CORE Occupational Medicine	855.683.9006
Tetra Tech EMI 24-hour Anonymous Hazard Reporting Line	866.383.8070
U.S. Coast Guard National Response Center	800.424.8802
InfoTrac	800.535.5053
Poison Control	800.222.1222
Fire department	911
Police department	911

Personnel Call-Down List:

Job Title or Position:	**Name**	**Cell Phone:**
Regional Safety Officer (RSO)	Chris Draper	(615) 969-1334
Project Manager:	Ray Mastrolonardo	(312) 201-7748
Field Team Leader:	Guy Montfort	(513) 664-8350
Site Safety Coordinator (SSC):	TBD	TBD
Subcontractor SSC:	TBD	TBD

Medical and Site Emergencies:

Signal a site or medical emergency with three blasts of a loud horn (car horn, fog horn, or similar device). Site personnel should evacuate to the area of safe refuge designated on the site map.

Hospital Name: Upper Valley Medical Center
Address: 3030 North County Road, 2A
Troy, Ohio 45373-1335

General Phone: (937) 440-4000
Emergency Phone: 911
Ambulance Phone: 911 or (937) 335-6655

Hospital called to verify emergency services are offered? YES ☒ NO ☐

Step-by-step Route to Hospital: (see Page 12 of 13 for route map)

1) Head east towards E Main street
2) Exit the traffic circle onto W Main Street
3) Turn right onto N Elm Street (0.04 miles)
4) Continue onto N Co Rd 25A (2.8 miles
5) Arrive at Upper Valley Medical Center

Note: This page must be posted on site.

Decontamination Procedures

The site safety coordinator overseas implementation of project decontamination procedures and is responsible for ensuring they are effective.

Personnel Decontamination

Level D Decon - ☒ Wet ☐ Dry

Level C Decon - ☐ Wet ☐ Dry

Level B Decon – Briefly outline the level B decontamination methods to be used on a separate page attached to this HASP.

Level A Decon – A Level 3 HASP is required. Notify your regional health and safety representative and health and safety director.

Equipment Decontamination

All tools, equipment, and machinery from the Exclusion Zone (hot) or Contamination Reduction Zone (warm) are decontaminated in the CRZ before they are removed to the Support Zone (cold). Equipment decontamination procedures are designed to minimize the potential for hazardous skin or inhalation exposure, cross-contamination, and chemical incompatibilities.

Respirator Decontamination

Respirators are decontaminated in compliance with SWP 5-27 and should be included with this HASP.

Waste Handling for Decontamination

Procedures for decontamination waste disposal meet all applicable local, state, and federal regulations.

Decontamination Equipment

- ☐ Washtubs
- ☒ Buckets
- ☒ Scrub brushes
- ☐ Pressurized sprayer
- ☒ Detergent [Alconox]
- ☐ Solvent
- ☐ Household bleach solution
  Concentration/Dilution: _____
- ☐ Deionized water
- ☐ Disposable sanitizer wipes
- ☐ Facemask sanitizer powder
- ☐ Wire brush
- ☒ Spray bottle
- ☐ Tubs / pools
- ☐ Banner/barrier tape
- ☐ Plastic sheeting
- ☐ Tarps and poles
- ☒ Trash bags
- ☐ Trash cans
- ☐ Duct tape
- ☒ Paper towels
- ☐ Folding chairs
- ☐ Other

Emergency Response Planning

During the pre-work briefing and daily tailgate safety meetings, all on-site employees will be trained in the provisions of emergency response planning, site communication systems, and site evacuation routes.

In the event of an emergency that necessitates evacuation of a work task area or the site, the following procedures will take place.

- The Tetra Tech SSC will contact all nearby personnel using the on-site communications to advise the personnel of the emergency.
- The personnel will proceed along site roads to a safe distance upwind from the hazard source.
- The personnel will remain in that area until the SSC or an authorized individual provides further instructions.

In the event of a severe spill or a leak, site personnel will follow the procedures listed below.

- Evacuate the affected area and relocate personnel to an upwind location.
- Inform the Tetra Tech SSC, a Tetra Tech office, and a site representative immediately.
- Locate the source of the spill or leak, and stop the flow if it is safe to do so.
- Begin containment and recovery of spilled or leaked materials.
- Notify appropriate local, state, and federal agencies.

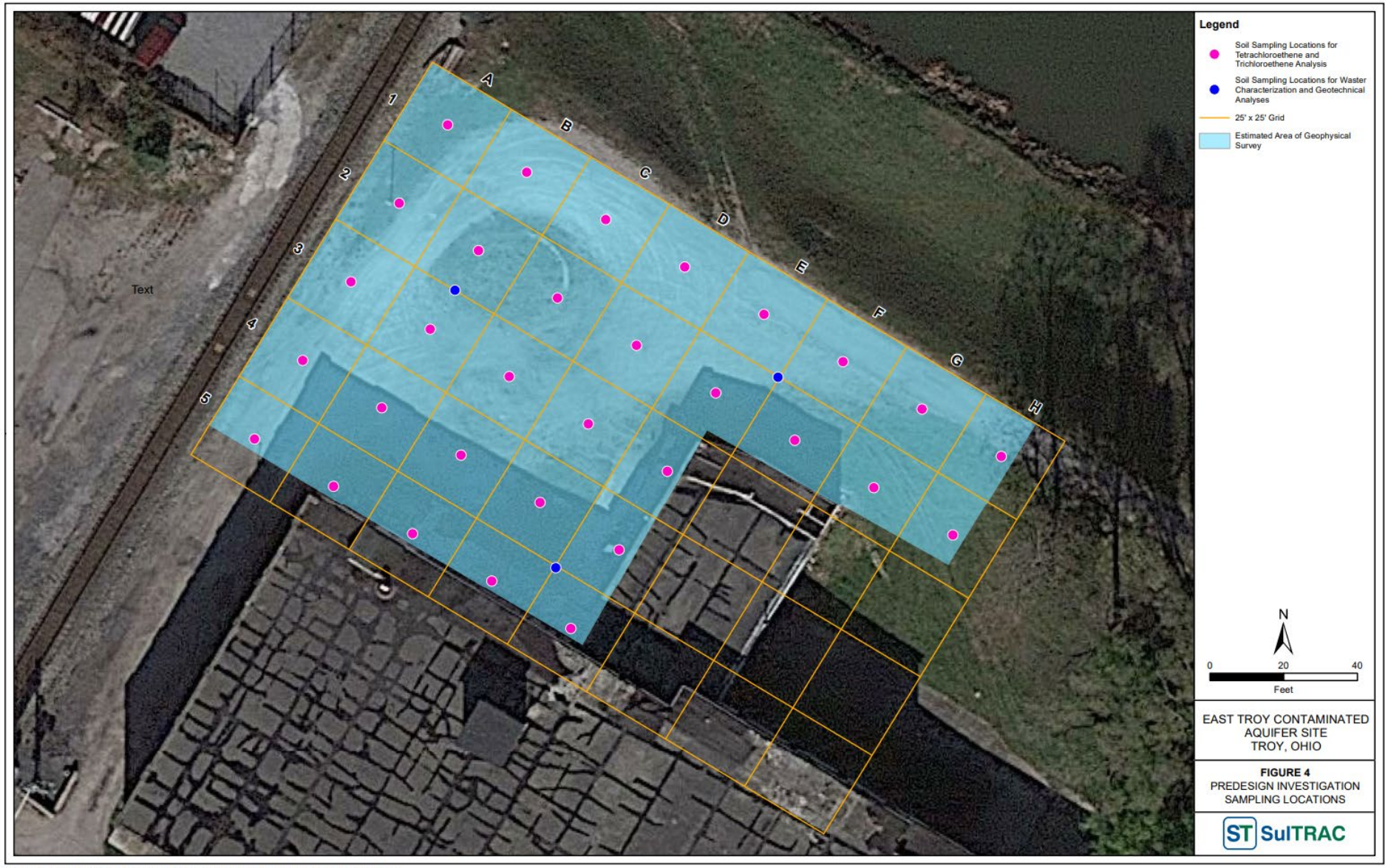
In the event of severe weather, site personnel will follow the procedures listed below.

- Site work shall not be conducted during severe weather, including high winds and lightning.
- In the event of severe weather, stop work, lower any equipment (drill rigs) and evacuate the affected area.
- Severe weather may cause heat or cold stress. Refer to SWPs 5-15 and 5-16 for information on both.

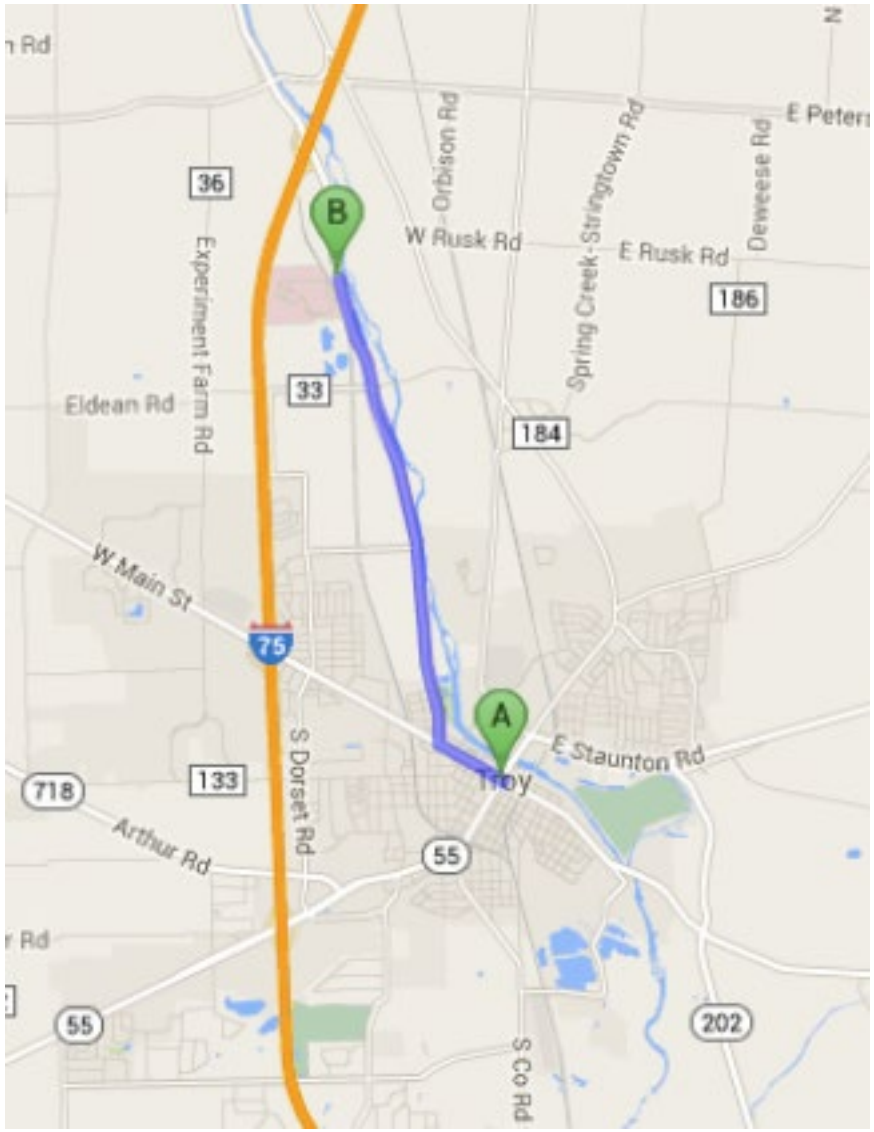
All work-related incidents must be reported. According to TtEMI's reporting procedures, for non-emergency incidents you should:

- Notify WorkCare and Incident Intervention at 888.449.7787, or 800.455.6155
- Notify your Project Manager or Regional Safety Officer (RSO) via phone immediately.
- Complete a "Tetra Tech Incident Report" (Form IR) within 24 hours and send it to your RSO. If an injury or illness has occurred, the Form IR-A and the WorkCare HIPAA form must be completed at the same time the Form IR is completed.

Site Map (May be drawn after crews arrive onsite or inserted using aerial photographs, site figures, etc.):



Hospital Route Map (attach or insert):
See Page 9 of 13 for Directions



Note: A dry-run should be conducted to establish a physical location associated with the map included in the HASP. Verbal verification from the hospital emergency room should also be obtained to ensure that the hospital will accept chemically contaminated patients.

APPROVAL AND SIGN-OFF FORM

Project No.: 103G6401001.0001.1.2

I have read, understood, and agree with the information set forth in this Health and Safety Plan and will follow the direction of the Site Safety Coordinator (SSC) as well as procedures and guidelines established in the Tetra Tech, Inc., Health and Safety Manual. I understand the training and medical requirements for conducting field work and have met these requirements.

Tetra Tech has prepared this plan solely for the purpose of the health and safety protection of Tetra Tech employees. Subcontractors, visitors, and others at the site, while required to read and follow the provisions outlined in this plan at a minimum, should refer to their safety program for specific information related to their health and safety protection.

Name	Company / Agency / Organization	Signature	Date

I have read, understood, and agree with the information set forth in this Health and Safety Plan and comply with and will enforce this HASP, as well as procedures and guidelines established in the Tetra Tech, Inc., Health and Safety Manual.

Name	Project-Specific Position	Signature	Date
	Project Manager		
	Field Team Leader		
	Site Safety Coordinator		
	Subcontractor SSC		

Tetra Tech has prepared this plan solely for the purpose of the health and safety protection of Tetra Tech employees. Subcontractors, visitors, and others at the site, while required to read, acknowledge and follow the provisions outlined in this plan at a minimum, should refer to their safety program for specific information related to health and safety.

Note: Use Additional sheets as necessary to ensure that all personnel sign and affirm this document.

Emergency Contacts

WorkCare - For issues requiring an Occupational Health Physician; assistance is available 24 hours per day, 7 days per week.

InfoTrac - For issues related to incidents involving the transportation of hazardous chemicals; this hotline provides accident assistance 24 hours per day, 7 days per week

U.S. Coast Guard National Response Center - For issues related to spill containment, cleanup, and damage assessment; this hotline will direct spill information to the appropriate state or region

Poison Control Center – For known or suspected poisoning.

Limitations:

The Level-Two HASP is not appropriate in some cases:

- Projects involving unexploded ordnance (UXO), radiation sources as the primary hazard, or known chemical/biological weapons site must employ the Level 3 HASP
- Projects of duration longer than 90 days may need a Level 3 HASP (consult your RSO)

Decontamination:

Decontamination Solutions for Chemical and Biological Warfare Agents[a]: PPE and equipment can be decontaminated using 0.5 percent bleach (1 gallon laundry bleach to 9 gallons water) for biological agents (15 minutes of contact time for anthrax spores; 3 minutes for others) followed by water rinse for chemical and biological agents. In the absence of bleach, dry powders such as soap detergents, earth, and flour can be used. The powders should be applied and then wiped off using wet tissue paper. Finally, water and water/soap solutions can be used to physically remove or dilute chemical and biological agents. Do not use bleach solution on bare skin; use soap and water instead. Protect decontamination workers from exposure to bleach.

Decontamination for Radiological and Other Chemicals: Primary decontamination should use Alconox and water unless otherwise specified in chemical specific information resources. The effectiveness of radiation decontamination should be checked using a radiation survey instrument. Decontamination procedures should be repeated until the radiation meter reads less than 100 counts per minute over a 100-square-centimeter area when the probe is held 1 centimeter from the surface and moving slower than 2.5 centimeters per second.

Decontamination Corridor: The decontamination setup can be adjusted to meet the needs of the situation. The decontamination procedures can be altered to meet the needs of the specific situation when compound- and site-specific information is available.

Decontamination Waste: All disposable equipment, clothing, and decontamination solutions will be double-bagged or containerized in an acceptable manner and disposed of with investigation-derived waste.

Decontamination Personnel: Decontamination personnel should dress in the same level of PPE or one level below the entry team PPE level.

All investigation-derived waste should be left on site with the permission of the property owner and the EPA on-scene coordinator. In some instances, another contractor will dispose of decontamination waste and investigation-derived waste. DO NOT place waste in regular trash. DO NOT dispose of waste until proper procedures are established.

Notes:

[a] Source: Jane's Information Group. 2002. *Jane's Chem-Bio Handbook*. Page 39.

TETRA TECH, INC.

DAILY TAILGATE SAFETY MEETING FORM

Date: _____ Time: _____ Project No.: _____

Client:_____ Site Location: _____

Site Activities Planned for Today: _____

Weather Conditions: _____

Safety Topics Discussed	
Protective clothing and equipment:	
Chemical and physical hazards:	
Emergency procedures:	
Equipment hazards:	
Other:	
Attendees	
Printed Name	**Signature**

Meeting Conducted by:

_____ _____

Name Signature

TETRA TECH EM INC.

HEALTH AND SAFETY PLAN AMENDMENT

Site Name: _____

Amendment Date: _____

Purpose or Reason for Amendment: _____

_____

_____

Required Additional Safe Work Practices or Activity Hazard Analyses: _____

_____

Required Changes in PPE: _____

_____

_____

Action Level Changes: _____

_____

_____

_____

_____

AMENDMENT APPROVAL

RSO or Designee	_____ Name	_____ Signature	_____ Date
Site Safety Coordinator	_____ Name	_____ Signature	_____ Date

Date presented during daily site safety meeting: _____

TETRA TECH, INC.

FIELD AUDIT CHECKLIST

Project Name: _____ Project No.: _____

Field Location: _____ Completed by: _____

Project Manager: _____ Site Safety Coordinator: _____

General Items		In Compliance?		
Health and Safety Plan Requirements		Yes	No	NA
1	Approved health and safety plan (HASP) on site or available			
2	Names of on-site personnel recorded in field logbook or daily log			
3	HASP compliance agreement form signed by all on-site personnel			
4	Material Safety Data Sheets on site or available			
5	Designated site safety coordinator physically present on jobsite			
6	Daily tailgate safety meetings conducted and documented on Form HST-2			
7	Documentation available proving compliance with HASP requirements for medical examinations, fit testing, and training (including subcontractors)			
8	HASP onsite matches scope of work being conducted			
9	Emergency evacuation plan in place and hospital located			
10	Exclusion, decontamination, and support zones delineated and enforced			
11	HASP attachments present onsite (VPP sheet, audit checklist, AHA, etc.)			
12	Illness and injury prevention program reports completed (California only)			
Emergency Planning				
13	Emergency telephone numbers posted			
14	Emergency route to hospital posted			
15	Local emergency providers notified of site activities			
16	Adequate safety equipment inventory available			
17	First aid provider and supplies available			
18	Eyewash solution available when corrosive chemicals are present			
Air Monitoring				
19	Monitoring equipment specified in HASP available and in working order			
20	Monitoring equipment calibrated and calibration records available			
21	Personnel know how to operate monitoring equipment and equipment manuals available on site			
22	Environmental and personnel monitoring performed as specified in HASP			

Safety Items		In Compliance?		
Personal Protection		Yes	No	NA
23	Splash suit, if required			
24	Chemical protective clothing, if required			
25	Safety glasses or goggles (always required)			
26	Gloves, if required			
27	Overboots, if required			
28	Hard hat (always required)			
29	High visibility vest, if required			
30	Hearing protection, if required			
31	Full-face respirator, if required			
Instrumentation				
32	Combustible gas meter and calibration notes			
33	Oxygen meter and calibration notes			
34	Organic vapor analyzer and calibration notes			
Supplies				
35	Decontamination equipment and supplies			
35	Fire extinguishers			
37	Spill cleanup supplies			
Corrective Action Taken During Audit:				

Note: NA = Not applicable

_____ _____

Auditor's Signature Site Safety Coordinator's Signature

_____

Date

Tetra Tech, Inc.	**ACTIVITY HAZARD ANALYSIS (AHA)**
	Tetra Tech EM Inc.
	(Insert Task Name Here)

Task Description

This Activity Hazard Analysis (AHA) applies to the task listed above. It has been developed and approved by the Director of Health and Safety for Tetra Tech EMI. The AHA contains potential hazards posed by each major step in this task, lists procedures to control hazards, and presents required equipment (including safety equipment), inspections, and training. The hazard controls listed below are specific to this task.

Insert a brief narrative description of each task to be completed.

Below, go step by step through the whole process. For each step, identify the potential hazards and describe the "actions" taken to control the hazard (i.e. PPE, lock-out tagout, training, keeping unauthorized parties out of the area, etc.), Example below.

Hazards		Actions
Task Steps	**Potential Hazards**	**Critical Safety Procedures and Controls**
Insert additional rows as needed		
Equipment to be Used	**Inspection Requirements**	**Training Requirements**

Assessed By _____ Name _____ Signature _____ Date

Approved By _____ Name _____ Signature _____ Date

ACTIVITY HAZARD ANALYSIS (AHA)

Tetra Tech, Inc.

Site Documentation and Observation of Heavy Equipment Operations

Task Description

This Activity Hazard Analysis (AHA) applies to monitoring/oversight of excavation activities at lead sites. It has been developed and approved by the Regional Director of Health and Safety for Tetra Tech, Inc. The AHA contains potential hazards posed by each major step in this task, lists procedures to control hazards, and presents required safety equipment, inspections, and training.

Overall Job Risk Assessment code (RAC)			Low
Hazards		**Actions**	
Task Steps	**Potential Hazards**	**Critical Safety Procedures and Controls**	**Risk Assessment Code (RAC)**
Site preparation	SLIP/TRIP/FALL LACERATION	• Visually inspect the area for slippery spots or debris and correct if found • Wear steel-toed, non-skid boots in accordance with Tetra Tech policy • Ensure all debris has been removed from the path of travel • Have a first aid kit available for small cuts • Have map showing route to hospital in vehicle	**Low**
Observation of Excavation Operations Near Heavy Equipment	NOISE HAZARD SLIP/TRIP/FALL HEAVY EQUIPMENT EXCAVATION COLLAPSE/ENTRAPMENT	• Wear hearing protection • Wear steel-toed, non-skid boots in accordance with Tetra Tech policy • Wear hard hat and reflective safety vest • Be aware of truck traffic on the property or site • Stay within equipment operator's field of vision and never enter within the swing radius of operating equipment without positive contact with the operator • Discuss hand signals with equipment operator(s) before commencing work • Wear safety glasses and nitrile gloves • Have a first aid kit available for small cuts • Have map showing route to hospital in vehicle or have hospital address programed into phone or GPS • **Never enter an excavation unless you have followed the procedures in Safe Work Practice No. 4-5, Trenching and Excavation Safety, and know that it is safe to do so.**	**Low**

		• **<u>Maintain a safe distance from the edge of an excavation and from heavy equipment near an excavation.</u>**	
<u>Equipment to be Used</u> • Level D PPE (steel-toed boots, safety glasses, nitrile gloves, hard hat, reflective safety vest) • First Aid Kit and eye wash	**<u>Inspection Requirements</u>** • None	**<u>Training Requirements</u>** • Personal Protective Equipment • Hazardous Waste Operations and Emergency Response (40-hour and current 8-hour update) • CPR/First Aid (one employee on-site must have current CPR/First Aid training)	

Tetra Tech, Inc.

ACTIVITY HAZARD ANALYSIS (AHA)

Activity/Work Task: Geophysical and Land Surveying	**Overall Risk Assessment Code (RAC) (Use highest code)**	**M**

Project Location:

Contract Task Order Number:

Date Prepared: 11 November 2018

Prepared by: Chris Draper

Reviewed by:

Notes: (Field Notes, Review Comments, etc.)

Risk Assessment Code (RAC) Matrix

Severity	**Probability**				
	Frequent	Likely	Occasional	Seldom	Unlikely
Catastrophic	**E**	**E**	**H**	**H**	**M**
Critical	**E**	**H**	**H**	**M**	**L**
Marginal	**H**	**M**	**M**	**L**	**L**
Negligible	**M**	**L**	**L**	**L**	**L**

Step 1: Review each **"Hazard"** with identified safety "Controls" and determine RAC (See above)

"Probability" is the likelihood to cause an incident, near miss, or accident and
Identified as: Frequent, Likely, Occasional, Seldom, or Unlikely.

"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible

Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.

RAC Chart

E= Extremely High Risk
H= High Risk
M= Moderate Risk
L = Low Risk

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
1. Mobilization to the site.	1. Driving	1. See Mobilization/demobilization AHA for control measures pertaining to • Driver qualifications • Distracted driving control measures • What to do if you are in an accident	L
2. Placement of vehicle	2. Struck by – Traffic hazards	2. Struck by To minimize potential Vehicle Traffic Hazards	M

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
		• Use caution around heavy and/or other fast-moving equipment. Be aware of blind spots in and around drill rigs and support vehicles. They may not see you or your equipment. • DO NOT place obstructions along the sides of the service or access roads that may cause personnel to move into the flow of traffic. **Provide a required Free Space of Travel.** This includes your support vehicle. • Required "Free Space": Maintain at least 6-feet of space between you and moving traffic. • Where this is not possible, use flaggers and/or signs to warn oncoming traffic of activities near or within the travel lanes. • Face Traffic: Whenever feasible, if you must move within the 6-feet of required space, or into traffic attempt to face moving traffic at all times. Always leave yourself an escape route. • Wear High Visibility Vests to increase visual recognition by motorist. • Do not rely on the operator's visibility, judgment, or ability. Make eye contact with the driver. • Carefully and deliberately use hand signals so they will not startle or confuse motorists or be mistaken for a flagger's direction before moving into traffic. • Move Deliberately: Do not make sudden movements that might confuse a motorist. • Avoid where possible interrupting Traffic Flow: Minimize crossing traffic lanes. • Warning signs shall be placed indicating surveyors working from all approach venues where applicable.	

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
		Where free space of travel cannot be maintained a Traffic Control Plan will be required. This not anticipated.	
3. Surveying	3. Surveying – Vehicle and or traffic distraction. - Wondering into traffic pattern or flow.	3. Distraction – Control measures • Restrict flow and speed of traffic when working in traffic patterns or within the Free Space of Travel. • Minimize activities during high traffic periods or when visibility maybe affected such as early morning and near dusk. • Use the Buddy System, if you see a Team member not paying attention – Radio and remind. • Secure all loose articles – Papers, maps, etc. – Persons will run into traffic not intentionally but to chase a piece of paper blowing away. • Always wear High Visibility Vests, jackets, etc. to increase visual detection.	M
4. Surveying - Driving hubs into the ground using hammers to mark identifying control points	4. Flying projectiles/Struck by/ impaled	4. Flying projectiles/Struck by • To protect from projectiles eye injuries personnel will wear safety glasses. • Crack or damage hubs will not be used. • Use a suitable hammer to drive the hubs. The hammer shouldn't be so heavy that and additional person must hold the hub while you drive it into the ground. • Ensure the hammer head is attached tightly and has no indication of a mushrooming head that could also become a flying projectile. • Hub covers with extended handles are recommended for this task. These steel caps fit over hubs to prevent the ejection of shards while the extension handle takes your hands and fingers	L

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
		out of the strike point or area. The down slide, it is another piece of equipment to carry. • Place the hubs in a bucket or similar device to prevent an impalement injury.	
5. Surveying - Movement over various terrain types, through various vegetation	5. Slips, trips, and falls	5. Slips, trips, and falls • Remove/identify trip hazards from the work area, so they may be avoided. • Maintain good housekeeping within the work area. • Select the best route possible for moving over various terrain types and vegetation • Work boots with a rugged lug is recommended to minimize slips, trip, and falls. • Lace up boots providing ankle support is recommended for movement over various terrain. Steel toed boots are not required for this task.	L
6. Cutting site lines, where necessary using hand tools.	6. Cuts/Lacerations	6. Cuts/lacerations; Struck by • See Hand tool use for removal of vegetation – Cutting site lines • Wear hard hat, safety glasses, and leather gloves when cutting and removing vegetation. • Keep cutting tools within their sheath during periods of travel or non-use. • Machetes will be equipped with an adequate hilt to avoid the hand sliding down the blade in the event of a fall. This provision has been added should minor clearing be required.	L
7. Surveying points	7. Natural hazards – Irritating plants, insects, snakes and other reptiles.	7. Poisonous plants/Insect Bites Insects populations can vary from ants, bees, spiders, ticks, and mosquitoes, etc.. These populations within certain regions are prevalent in all areas other regions are not as prevalent to certain	M

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
		populations. This will also be affected by the season in which the work is being conducted.	
8. Surveying	8. Inclement weather	8. In order to respond to inclement weather scenarios, the following actions will be employed: • Electrical/Thunderstorms – Where possible employ a lightning detection equipment to warn field personnel of approaching storms. Where this is not possible, use the 30/30 rule *If there is 30 seconds or less between thunder and lightning go inside for 30 minutes or more since the last thunder.* • Heavy rains/Winter storms – The survey team leader shall assess conditions and determine whether work will continue. This action shall include and assessment concerning traffic in the area and that traffics ability to control their vehicle's and not slide into work crews. In these cases, work will be restricted from along traffic travel patterns.	M
Preparation and Set up for Geophysical Screening. This will include laying out a grid, removing obstacles where possible	1. Slips, trips, and falls -	1) Slips, trips, and falls • Remove/identify trip hazards from the work area so they may be avoided. • Earthen depressions (sink holes) caused through previous excavation activities and settling will present trip and fall hazards. These areas should be flagged so the surveyor knows he/she is approaching a hazard. This is especially prevalent when dragging or pulling the GPR unit. • Maintain good housekeeping within the work area. Remove ground litter and debris that may exacerbate this hazard while also interfering with the screening results.	

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
		• Wear boots with an adequate lug to minimize slipping potential when rains have created slippery conditions.	
Equipment handling	2. Lifting (strain/muscle pulls)	2. Lifting (strain/muscle pulls) • Seek assistance when moving the GPR unit due to size configuration and sensitivity in and out of transport vehicles. • Take breaks as often as necessary when carrying the EM-61 (or similar) for extended periods of time • Use proper lifting techniques	
Marking subsurface anomalies	3. Flying projectiles; struck by broken hubs	3) Flying projectiles/Struck by • When hammering wooden hubs into the ground there is a possibility that shards may break off. To protect from potential eye injury during this activity personnel will wear safety glasses. • Crack or damage hubs will not be used. • Use a suitable hammer to drive the hubs. The hammer shouldn't be so heavy that and additional person must hold the hub while you drive it into the ground. • Inspect the hammer to insure the head is attached tightly and there are no indication of mushrooming head that could also become a flying projectile should it break off. • Use paint with an extend paint spray attachment, then come back and drive the hubs using a hub cap driving implement. This removes hands and protects against shards being splintered and driven off.	

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
		• Wear safety glasses anytime you are engaged impact related activities such as driving hubs.	
Conducting EM and GPR Surveys	4. Traffic hazards/Struck by	4. To minimize potential Vehicle Traffic Hazards • Be extremely cautious around heavy and/or fast-moving equipment. • DO NOT place obstructions along the sides of the service or access roads that may cause personnel to move into the flow of traffic. **Provide a required Free Space of Travel.** • Required “Free Space”: Maintain at least 6-feet of space between you and moving traffic. • Where this is not possible, use flaggers and/or signs to warn oncoming traffic of activities near or within the travel lanes. • Face Traffic: Whenever feasible, if you must move within the 6-feet of required space, or into traffic attempt to face moving traffic at all times. Always leave yourself an escape route. • Wear High Visibility Vests to increase visual recognition.	

EQUIPMENT TO BE USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
Machetes; brush axes; sledge hammers; Survey equipment.	Inspect handles; heads; cutting implements	General operating/demonstrated skill of the survey personnel.
Personal Protective Equipment: <u>Minimum</u>: Hard hat and safety glasses when removing vegetation; Safety glasses and leather or similar material work gloves; footwear with adequate Lug and ankle support; leather/canvas work gloves for moving over various terrain. **<u>Optional items</u>**: High visibility vests are recommended for these activities in high traffic areas. **Emergency Equipment** - First Aid Kit - Fire Extinguisher - Map to Hospital - Emergency Contact List	Inspect PPE to Ensure it is in adequate condition	All personnel • Site Specific Training – All personnel shall be instructed and attest to the review and understanding of this HASP prior to the commencement of on-site activity. • Periodically, Tailgate Training Sessions will be conducted to review activities in progress, results of site surveys, and upcoming tasks. It is recommended that AHAs be reviewed prior to conducting the identified task. • Complete a Medical Data Sheet Survey License and/or Certification Proof **Decontamination Procedures:** Not required. Good personal hygiene practices are to be employed prior to breaks lunch or other period when hand to mouth contact occurs. This will minimize potential ingestion exposures. Perform a close body inspection to remove ticks and associated insects when exiting unimproved areas (heavy vegetation).

Tetra Tech, Inc.

ACTIVITY HAZARD ANALYSIS (AHA

Tetra Tech EM In

Direct-Push Apparatus Samplin

Task Description

This Activity Hazard Analysis (AHA) applies to collection of grab groundwater samples. It has been developed and approved by the Health and Safety Department The AHA identifies potential hazards posed by each major step in this task, lists procedures to control hazards, and presents required safety equipment, inspection and training.

Overall Job Risk Assessment code (RAC)

Hazards		Actions	
Task Steps	**Potential Hazards**	**Critical Safety Procedures and Controls**	**Risk Assessme Code (RAC**
Site preparation	SLIP/TRIP/FALL LIFTING – SPRAIN/STRAIN	• Ensure that ALL utilities have been marked and stay outside of the margin or error. • Maintain safe distance form ANY overhead utilities and structures. • Visually inspect the area for slippery spots or debris and correct if found • Wear steel-toed, non-skid boots in accordance with Tetra Tech EMI policy • Use proper lifting techniques (lift with legs not back)	**Low**
Soil Sampling Activities	NOISE HAZARD EMPLOYEE EXPOSURE HEAVY EQUIPMENT LIFTING – SPRAIN/STRAIN LACERATION	• Wear hearing protection • No loose-fitting clothing; wear hardhat, safety glasses, high-visibility (Class II) vest/shirt and nitrile gloves; upgrade to Level C IAW HASP requirements • Use double-bladed cutting tool to open acetate sleeve – USE EXTREME CAUTION • Handle glass containers carefully; dispose of any broken glass shards	**Low**
Groundwater Sampling Activities	NOISE HAZARD EMPLOYEE EXPOSURE HEAVY EQUIPMENT LIFTING – SPRAIN/STRAIN LACERATION	• Wear hearing protection • No loose-fitting clothing; wear hardhat, safety glasses, high-visibility (Class II) vest/shirt and nitrile gloves; upgrade to Level C IAW HASP requirements • Use double-bladed cutting tool to open acetate sleeve – USE EXTREME CAUTION • Handle glass containers carefully; dispose of any broken glass shards	**Low**
Sampling and sample handling	EMPLOYEE EXPOSURE LACERATION SLIP/TRIP/FALL BACK STRAIN/SPRAIN	• Wear safety glasses and nitrile gloves • Handle glass containers carefully; dispose of any broken glass shards • Wear steel-toed, non-skid boots in accordance with Tetra Tech EMI policy • Use proper lifting techniques, including obtaining help with heavy coolers	**Low**

Equipment to be Used	**Inspection Requirements**	**Training Requirements**
• Specified PPE • Sampling equipment, pumps, bottle ware, etc. • Air monitoring equipment IAW site HASP • First aid kit & eye wash	• PPE prior to use • Inspect and calibrate any monitoring equipment • Subcontractor MUST inspect drill prior to operation	As specified in site HASP

Tetra Tech, Inc.	**ACTIVITY HAZARD ANALYSIS (AHA**
	Tetra Tech EM In
	Hollow Stem Auger Samplin

Task Description	
This Activity Hazard Analysis (AHA) applies to collection of grab groundwater samples. It has been developed and approved by the Health and Safety Department. The AHA identifies potential hazards posed by each major step in this task, lists procedures to control hazards, and presents required safety equipment, inspections, and training.	
Overall Job Risk Assessment code (RAC)	**Low**

Hazards		**Actions**	
Task Steps	**Potential Hazards**	**Critical Safety Procedures and Controls**	**Risk Assessment Code (RAC)**
Site preparation	SLIP/TRIP/FALL LIFTING – SPRAIN/STRAIN	• Visually inspect the area for slippery spots or debris and correct if found • Wear steel-toed, non-skid boots in accordance with Tetra Tech EMI policy • Use proper lifting techniques (lift with legs not back)	**Low**
Soil Sampling Activities	NOISE HAZARD EMPLOYEE EXPOSURE HEAVY EQUIPMENT LIFTING – SPRAIN/STRAIN LACERATION	• Wear hearing protection • No loose-fitting clothing; wear hardhat, safety glasses, high-visibility (Class II) vest/shirt and nitrile gloves; upgrade to Level C IAW HASP requirements • Use double-bladed cutting tool to open acetate sleeve – USE EXTREME CAUTION • Handle glass containers carefully; dispose of any broken glass shards	Low
Groundwater Sampling Activities	NOISE HAZARD EMPLOYEE EXPOSURE HEAVY EQUIPMENT LIFTING – SPRAIN/STRAIN LACERATION	• Wear hearing protection • No loose-fitting clothing; wear hardhat, safety glasses, high-visibility (Class II) vest/shirt and nitrile gloves; upgrade to Level C IAW HASP requirements • Use double-bladed cutting tool to open acetate sleeve – USE EXTREME CAUTION • Handle glass containers carefully; dispose of any broken glass shards	Low
Sampling and sample handling	EMPLOYEE EXPOSURE LACERATION SLIP/TRIP/FALL	• Wear safety glasses and nitrile gloves • Handle glass containers carefully; dispose of any broken glass shards • Wear steel-toed, non-skid boots in accordance with Tetra Tech EMI policy	Low

	BACK STRAIN/SPRAIN	• Use proper lifting techniques, including obtaining help with heavy coolers	
Equipment to be Used • Specified PPE • Sampling equipment, pumps, bottle ware, etc. • Air monitoring equipment IAW site HASP • First aid kit & eye wash	**Inspection Requirements** • PPE prior to use • Inspect and calibrate any monitoring equipment • Subcontractor MUST inspect drill prior to operation	**Training Requirements** • As specified in site HASP	

Tetra Tech, Inc.	**ACTIVITY HAZARD ANALYSIS (AHA)**

Activity/Work Task: IDW and Other Management	Overall Risk Assessment Code (RAC) (Use highest code)	**M**
Project Location:	**Risk Assessment Code (RAC) Matrix**	
Contract Number:	**Severity** / **Probability**	
Date Prepared: 05/20/2018	Frequent / Likely / Occasional / Seldom / Unlikely	
Prepared by:	Catastrophic: **E** / **E** / **H** / **H** / **M**	
	Critical: **E** / **H** / **H** / **M** / **L**	
Reviewed by: Chris Draper	Marginal: **H** / **M** / **M** / **L** / **L**	
	Negligible: **M** / **L** / **L** / **L** / **L**	
Notes: (Field Notes, Review Comments, etc.)	Step 1: Review each **"Hazard"** with identified safety "Controls" and determine RAC (See above)	
	"Probability" is the likelihood to cause an incident, near miss, or accident and Identified as: Frequent, Likely, Occasional, Seldom, or Unlikely.	**RAC Chart**
	"Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible	**E= Extremely High Risk**
		H= High Risk
	Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.	**M= Moderate Risk**
		L = Low Risk

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
1. Storage Area set up	1. Traffic hazards; Material handling hazards	1. Traffic hazards/Material Handling hazards – This area should be easily accessible in order to place and remove the drums accumulated. To further reduce material handling hazards, support spill containment and control, and sampling when necessary, the IDW storage area should be structured as follows: • Maximum 4-drums to a pallet with retaining ring bolt and label on the outside for easy access/reference. • Maintain a minimum of 4-feet between each row of pallets. This is the minimum distance necessary to wheel drums on a drum dolly.	L

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
		• If the site is not secured, the satellite storage area shall be fenced and signs placed indicating the following: a. Primary Point of Contact (make sure they know they been identified as the primary point of contact). b. Phone Number c. Emergency Contact (If different from the primary) • Provide a Drum/Container Inventory to the Primary Point of Contact and to Emergency Services, if they deem it necessary. The inventory should contain: a. Each drum shall be assigned a unique identification number. This number shall be placed on the label and drum shell using a paint marker (Note: Do not paint the number on the lid as these have a tendency to get exchanged from time to time.) b. Types of waste materials (decontamination waters; purge waters, etc.) c. Volumes (Full or level associated with the container after completion of the project location) d. Where it was derived from (The site and/or wells) e. Dates (When filling began) f. Contact – For more information Ensure all lids are secured.	
2. Material Handling	2. Lifting (strain/muscle pulls)	2. Lifting (strain/muscle pulls) • Use mechanical means (i.e. dollies, etc.) to move and handle containers. Use proper lifting techniques described in Section 4.4 of the Health and Safety Guidance Manual (HSGM). • Fill drums and buckets only to 80% to minimize some of the weight and incidental spill issues. • Use help to move and place drums **Reminder:** The drums you are attempting to move, lift and/or relocate may weigh on the average of • 55-Gallon container of purge or decontamination waters = ~500 lbs. (including the container)	M

ACTIVITY / PHASE	POTENTIAL HAZARDS	RECOMMENDED ACTIONS / CONTROLS	RAC
3. Placing the drums	3. Pinches and compressions	3. Pinches and compressions – During placement of drums/containers on pallets use machinery or assistance from another person where possible. Keeps hand out of the area between drums during placement. • It is best to place the drums and pallets then transport buckets to fill the drums already placed. • Wear steel toed shoes with adequate lug to support traction when moving heavy containers. • If drums are used at the wells, Whale pumps may be used to transfer contents to a drum in the pick up and then again at the storage area. • If necessary buckets can also be used to transfer materials.	M
4. Spill prevention and protection • Staging and Labeling Containers.	4. Chemical contaminants exposure	4) Chemical hazards – Generally encountering contaminants during this activity is low unless the contents of a container must be transferred due to a faulty container [leak(s)]. The outside of containers should be cleaned of residual waters (e.g. splashes, etc.) to avoid potentially exposing all who come in contact. The FOL and/or the SSO will • Ensure the outsides of all drums moved to the staging area are washed/wiped clean.	L

Spill Containment - The primary area of concern regarding spills and/or releases are:

- Collection point –Use mortar tubs as secondary containment. In addition, keep the buckets in the mortar tubs during transport in your vehicle.
- Keep the buckets closed during transport.
- Avoid leaving containers open that may off gas during transport.
- Moving/Handling the drums/containers of waste materials. Minimize handling drums as much as possible and:.
  - Use proper lifting appliances such as drum grapplers, drum dollies, etc.,. Secure containers for movement over long distances.
  - Exercise care when using a backhoe or similar device to lift the drums. This could result in a bucket tooth puncturing the drum resulting in a release.
  - Place the drums onto a lift gate and flat bed with removable sides for transport to the staging area.

This section describes the procedures the Tetra Tech field personnel will institute when a spill or leak is detected:

- Initiate incidental response measures, including:
  - Employ personal protective equipment (see below). Take actions to stop the leak or spill by plugging or patching the container or raising the leak to the highest point in the vessel (for containers). Spread the absorbent material in the area of the spill, covering it completely.
  - Transfer material to a new vessel; collect and containerize the absorbent material. Label the new container appropriately. Await analyses for treatment and disposal options.
- Re-containerize spills, including 2-inch of top cover (if over soils) impacted by the spill. Await test results for treatment or disposal options.
- Notify the SSO or FOL immediately upon detection of a leak or spill and actions taken or employed.
- Personal Protective Equipment
  - Nitrile outer gloves
  - Splash Shield
  - Impermeable over-boots
  - Rain suits

Hazard Monitoring Required:	**Decontamination Procedures:**	**Permits/Requirements:**
Visual observation of work practices by the FOL and/or the SSO to minimize potential physical hazards (i.e., improper lifting, unsecured loads, cutting practices, etc.). Monitoring will only be employed if Spill Containment is implemented. Periodic visual inspection for leaks when filling drums or those at the staging area.	Not required, unless spill containment protocol is implemented. Then the following will apply • Once the spill is secured and all of the spill equipment has been through a soap and water wash and rinse. • Personnel will wash/rinse outer protective garment with soap and water.	• Complete IDW Inventory List

<table>
<tr><td></td><td colspan="2">• Remove outer protective garments.
• Wash hands and face.</td><td></td></tr>
<tr><td colspan="2">Training Required
• 29 CFR 1910.120 (e) Site Specific Training, See Figure 8-1

Medical Clearance/Surveillance Required
• Completed a Medical Data Sheet</td><td>Emergency Equipment
- First Aid Kit
- Fire Extinguisher
- Map to Hospital and Emergency Contact List (Posted and a copy placed in your First-Aid Kit.
- Spill Kit (Oil dry, wood shavings, or other absorbent materials, Shovels, brooms, Oil absorbent pads</td><td>H&S Supporting Program Requirements

None required.</td></tr>
</table>

TETRA TECH

TETRA TECH EMI
COVID-19 RESPONSE AND CONTINGENCY PLAN

INTRODUCTION

The health and safety (H&S) of Tetra Tech employees is our number one priority. During this world-wide crisis, Tetra Tech has taken actions to inform and protect our employees at their local offices and field worksites. We have established a dedicated COVID-19 Information and Guidance page on My.TetraTech.com to provide the most recent company guidance and policies regarding our response to Coronavirus Disease 2019 (COVID-19).

COVID-19 is a respiratory illness that can spread from person-to-person. The virus that causes COVID-19 is a novel (newly discovered) coronavirus that was first identified during an investigation into an outbreak in Wuhan, China and has only been known to spread in people since December 2019. For the latest summary on the COVID-19, visit the CDC Situation Summary page.

The purpose of this Tetra Tech EMI COVID-19 Response and Contingency Plan is to ensure that EMI employees are prepared to respond to a potential outbreak within our work environments. This situation is very fluid, and you are advised to stay updated by checking the Coronavirus Disease CDC website frequently. In addition, continually monitor the emails shared by your leadership and Safety Managers on this topic, as well as on the employee COVID-19 Information and Guidance page on the Tetra Tech intranet.

SYMPTOMS AND DISEASE TRANSMISSION

Person-to-person contact is the primary mode of transmission. Respiratory droplets from coughs and sneezes can infect others within close contact – about 6 feet. Touching contaminated surfaces then touching your own mouth, nose, or eyes is a possible route, but is not considered as significant as close contact with infected people; however, exposure pathways are still being studied by the Centers for Disease Control and Prevention (CDC). People are thought to be most contagious when they are most symptomatic (the sickest). Some exposure might be possible before people show symptoms (asymptomatic); there have been reports of this, but this is not thought to be the primary way the virus spreads. Monitor the CDC How COVID-19 Spreads site for up-to-date information on transmission.

The CDC believes the typical incubation period before symptoms appear is 2 to 14 days after infection. An analysis of publicly available data on infections estimated **5.1 days** for the median disease incubation period, according to a study led by Johns Hopkins Bloomberg School of Public Health. Symptoms include:

- Fever, usually over 100.4° F
- Cough, usually dry
- Shortness of breath

Check the CDC COVID-19 Symptoms page for updates.

TREATMENT AND PREVENTION

There is currently no FDA-approved medication or vaccine available for COVID-19. People infected with this virus should receive supportive care such as rest, fluids, and fever control, to help relieve symptoms. However, hospital care, including use of ventilators may be required for severe cases.

Steps to prevent the spread of COVID-19 are:

- Tetra Tech's corporate work-at-home policy has been revised to encourage all staff to work at home, whenever feasible, and in communication with project managers, their supervisor, and Operations Manager (OM), as appropriate.
- **Stay home** when you are sick.
- If you are sick, follow the CDC Prevention Measures for Persons Under Investigation.
- Wash your hands often with soap and water for at least 15-20 seconds. If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Avoid crowds and close contact (within 6 feet) with others who may be infected.
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
- Standard household cleansers and wipes are effective in cleaning and disinfecting frequently touched objects and surfaces.
- As it is currently flu and respiratory disease season, CDC recommends getting vaccinated for flu, taking everyday preventive actions to stop the spread of germs, and taking flu antivirals if prescribed.

REGARDING DOMESTIC AND INTERNATIONAL BUSINESS TRAVEL

Travelers

All non-essential domestic travel is prohibited. All travel will be limited to essential matters only with appropriate approvals by the EMI President, Jeremy Travis. Specific requests for travel approval should be routed through the appropriate supervisor and OM. Questions regarding definitions of "non-essential" or "essential matters" shall be determined by your OM.

International travel to any countries identified by the CDC as either Level 2 or Level 3 is **currently prohibited**. For the most current list of Level 2 and Level 3 countries see: https://wwwnc.cdc.gov/travel/notices. Any international travel must be approved by the EMI President, Jeremy Travis, and completion of a hazard assessment by H&S on a case-by-case basis. Check this site to determine if your planned international travel may involve countries with travel restrictions ***before*** you travel.

Level 3 Countries: Warning	Level 2 Countries: Alert	Level 1 Countries: Watch
Prohibited	***Prohibited***	**No non-essential travel**

All non-essential travel has been cancelled. Essential travel requests must be approved by Jeremy Travis.

Essential travel approved by Jeremy Travis should be limited.

To protect yourself during approved, essential travel:

- Travel MUST be booked using the Tetra Tech Travel Hub Dashboard.
- For international travel, have the International SOS (ISOS) app on your phone and check frequently for updates.
- Avoid contact with sick people.
- Avoid touching your eyes, nose, or mouth with unwashed hands.
- Discuss travel plans with CORE (855-683-9006), Tetra Tech's occupational medical consultant, and your personal provider.
- Older adults and travelers with chronic medical conditions may be at risk for more severe disease.
- Clean your hands often by washing them with soap and water for at least 20 seconds or using an alcohol-based hand sanitizer that contains at least 60%-95% alcohol.
- Sanitizer wipes are recommended for air travel.
    - It is especially important to clean hands after going to the bathroom; before eating; and after coughing, sneezing, or blowing your nose.

If you have spent time in a Level 2 or 3 location during the past 14 days (for work OR personal reasons) and feel sick with fever, cough, or have difficulty breathing:

- **Do not come to work!** Avoid public places and public transportation. Notify your supervisor, Human Resources (HR) representative, and H&S representative of your health condition.
- Seek medical advice. Call ahead before you go to a doctor's office or emergency room. Tell them about your recent travel and your symptoms.
- Use Tetra Tech's Teladoc service and app or similar telemedicine services to consult with physicians.
- Avoid contact with others.
- **Do not travel while sick.**

If you have spent time in a Level 2 or 3 location during the past 14 days (for work OR personal reasons) and are asymptomatic:

- **Do not come to work!** Avoid public places and public transportation. Notify your supervisor, HR, and H&S representatives of your health condition.
- Be sure you have your laptop and charger with you to facilitate working from home if necessary.
- Continue communicating with your supervisor on your status.
- After completing the self-quarantine 14-day period and if you do not exhibit any signs or symptoms mentioned above, you may be allowed to return to work.

PREVENTING OUTBREAKS IN THE WORKPLACE

The Tetra Tech Safe Work Practice, *Infectious Disease Guidance* (SWP 5-55), provides guidance to identify risk management techniques to protect employees who may be at increased risk of infection, address related complications, and maintain business operations. Tetra Tech has additionally eliminated in-person meetings of over 10 persons and is using "virtual meetings" whenever possible.

OMs are encouraged to work with their building management to ensure an appropriate cleaning schedule. Work surfaces should be regularly cleaned to maintain good housekeeping in the work environment. Clean surfaces that are touched by the hands or face diligently; such as, but not limited to: doorknobs, light switches, elevator buttons, remote controls, handrails, computer keyboards, mice, telephones, microphones, tables and chairs, coffeemakers, vending machines, etc.

If building management is non-responsive to our cleaning requests, OMs are encouraged to implement regular cleaning schedules of office space and restrooms using outside contracted janitorial personnel.

OMs should procure facial tissue, hand sanitizer (greater or equal to 60% alcohol), and disposable disinfectant wipes for employees to facilitate self-cleaning of frequent hand-contact surfaces (e.g., doorknobs, light switches, computer keyboards, telephones, vending machines). Employees or designated persons should inspect common areas and frequent hand-contact surfaces for cleanliness. If necessary, clean these areas with available disinfectant wipes. OMs should encourage personnel to clean their own workstation surfaces with available disposable disinfectant wipes.

Common areas should be regularly checked to ensure dishwashing detergent, sponges, and cleaning cloths are available and replaced as necessary.

Posters communicating COVID-19 prevention strategies shall also be posted in common areas throughout all office locations, including satellite offices and field sites with office trailers or facilities. Web resources for these posters can be found here:

- CDC Print Resources: https://www.cdc.gov/coronavirus/2019-ncov/communication/factsheets.html,
- ISOS Education and Communication: https://pandemic.internationalsos.com/2019-ncov/ncov-education-and-communication

Recommendations for EMI worksites include:

- Consider Skype meetings, use of Microsoft Teams, or SharePoint sites as opposed to meetings.
- Tetra Tech personnel should perform self-evaluations each day PRIOR to work. If any new symptoms or if any potential exposures have occurred, the employee should STAY HOME or at the hotel.
- Field workers should consider texting or emailing daily communications, such as safety briefings, to increase social distancing.
- Maintain soap and water, alcohol-based hand sanitizer (ABHS), AND sanitizing wipes in the vehicle.
- Do not shake hands. Maintain social distancing from everyone, including clients and your coworkers.
- Ensure workspaces are cleaned frequently.
- Ensure all staff members are provided information on disease transmission, symptoms, and prevention as discussed above.
- Supervisors shall work with OMs to determine the applicable actions regarding work arrangements other than normal work environments. This includes employees who may need to be home to care for children or other family members who are sick or affected by institutional closures.
- Managers and supervisors should be flexible with work at home assignments.
- All employees are responsible for notifying their supervisors or project/program mangers if project work will be affected during absence.

REPORTING AND MONITORING SUSPECTED CASES

Employees who become ill should report their illness to their Project Manager, OM, and H&S immediately. All employees absent from work three or more days because of their health, or to care for a family member, should report the absence to HR and may be eligible for Family Medical Leave Act. Contact your personal physician and consider using Tetra Tech's Teladoc service and app or similar telemedicine services. See the COVID-19 General Guidelines for Response flowchart at the end of this plan.

OMs should verify that more than one method of communicating with staff is available. Please ensure all telephone numbers / email distribution lists are up to date.

If your risk profile includes recent foreign travel, close contact with infected individuals, or a household member diagnosed with COVID-19, or you experience symptoms:

- Isolate – if at home, stay at home. If at the office, go home immediately and notify your supervisor of your health condition. If you are on business travel, isolate in the hotel and contact CORE and your supervisor immediately for guidance. Continue isolation until cleared by your physician or state or local health department.
- Seek medical attention as described above.
- Report to your supervisor, HR, and H&S representative. Report confirmed COVID-19 cases to help us track and monitor for possible workplace outbreaks. A suspected/confirmed case register will be maintained. The case register will include employee's name, dependent name, if applicable, current location, contact information, and emergency contact information. Actions outlined below may be necessary. CORE Occupational Medicine will be contacted to verify test results performed by an employee's physician or state or local health department. ***All personally identifiable information must be kept confidential.***
- Notify HR if an employee requests to self-quarantine because they have reason to believe that reporting to work would pose an imminent or serious danger to themselves or others.

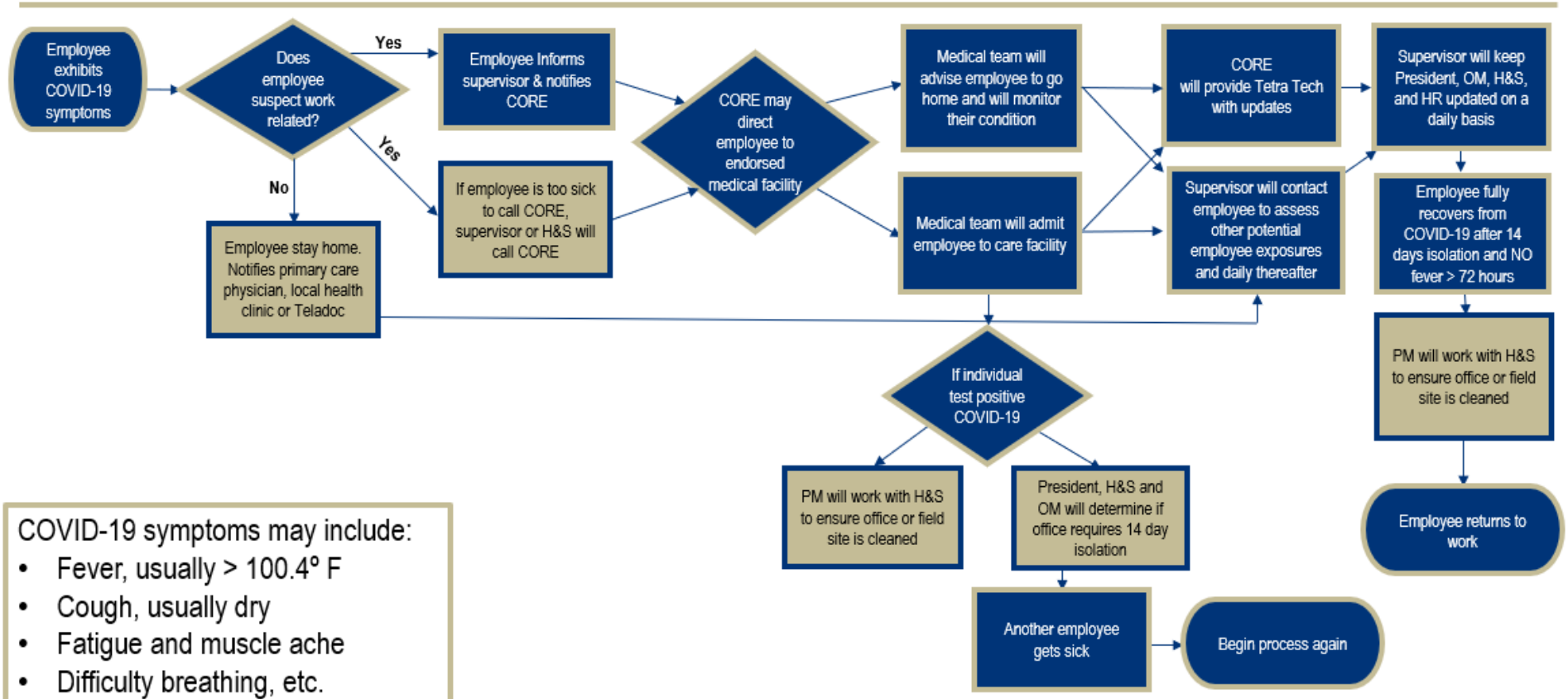
Response to Possible Outbreak

In the event of a confirmed case of COVID-19 in the workplace:

- OM and H&S representative will provide for guidance on cleaning procedures for a confirmed employee's work environment, including offices, field worksites, and hotel rooms.
- OM, H&S, and HR will coordinate notice to staff of the confirmed case and possible exposure to the virus, without revealing the individual's identity.
- Ask all employees to remain vigilant and immediately isolate and report any symptoms.
- The OM for the office location will notify the building landlord.
- Field team leaders will notify the client and any others that have been in contact with a potentially infected employee.
- Notify Jeremy Travis. Executive leadership will determine appropriate contingency plan for the specific location with local OMs. This may include shutting down the site or office to minimize the spread of COVID-19.
- H&S representative will notify the hotel and any local or state public health agencies and complete reporting requirements, if any.
- Executive leadership and H&S will coordinate care for employees quarantined in hotels or areas apart from their families as necessary.

If a worksite or office is closed, EMI leadership will continue to monitor and communicate with affected work site or office leadership during closure.

COVID-19 General Guidelines for Response



COVID-19 symptoms may include:

- Fever, usually > 100.4° F
- Cough, usually dry
- Fatigue and muscle ache
- Difficulty breathing, etc.

TETRA TECH

CORE: **1-855-683-9006**
H&S: Chris Draper – 615-969-1334; Denny Cox – 816-668-7464; or Dave Brown – 619-446-7261
HR: Shannon Stuver – 541-482-8938 or Diane Stopa – 703-885-5518
President: Jeremy Travis – 703-885-5520

INTRODUCTION

Tetra Tech recognizes the need to prepare for and minimize the impact of either a localized outbreak of serious infectious disease, pandemic disease events or other events that may present a health risk to employees. The objective of this guidance is to identify risk management techniques and coordinate response, protect employees who are at increased risk of infection, address related complications, and maintain business operations.

Given the diversity in the size and nature of Tetra Tech operations, appropriate responses to these health events will depend on several key indicators such as:

- Disease severity in general and high risk populations;
- Extent of disease at the location;
- Amount of worker absenteeism; and
- Other factors that may affect an employee's ability to get to work (restrictions on travel, school closures, care for sick family members, conflicts, etc.).

Tetra Tech offices and project locations are encouraged to take appropriate actions based on conditions at each location.

In the event the severity of a pandemic event increases and key business operations are impacted, Tetra Tech may elect to activate its Business Continuity Plan (BCP) to maintain enterprise essential business functions. The decision to activate the BCP will be at the discretion of Tetra Tech's executive management.

This guidance outlines measures to identity risk in the workplace, appropriate work practice control measures, work policies, continuity of business operations, and communication methods. **While these general guidelines have been established, Tetra Tech may modify this guidance as needed based on current recommendations from public health authorities, Tetra Tech clients or specific business needs.**

RESPONSIBILITIES

Executive Management

Tetra Tech Management has the overall responsibility for effective and appropriate response to pandemic or disease outbreak events, including assuring that necessary resources are provided and that line managers and employees are held accountable for their responsibilities under this guidance.

Line Management (Chief of Party, Program Managers)

Line Management is responsible to evaluate the current situation based on their detailed knowledge of the project, location and available resources.

Line Management is responsible for ensuring that all project personnel are aware of and abide by company and project specific guidelines.

Line Managers must also be familiar with signs and symptoms of disease infection and ensure that the appropriate work practices and guidelines have been addressed for operations and tasks conducted by the employees they manage.

Health and Safety

Health and Safety personnel are responsible to provide overall direction for the health related components of this guidance at individual operating units. They will assure response effectiveness and act as a resource regarding health guidelines. Health and Safety may also consult with Tetra Tech's Medical Director or other medical resources regarding medical issues as appropriate.

Human Resources

Human Resource personnel will be responsible to provide direction for workplace policies related to this guidance at individual operating units. They will also assure response effectiveness and act as a resource regarding these issues.

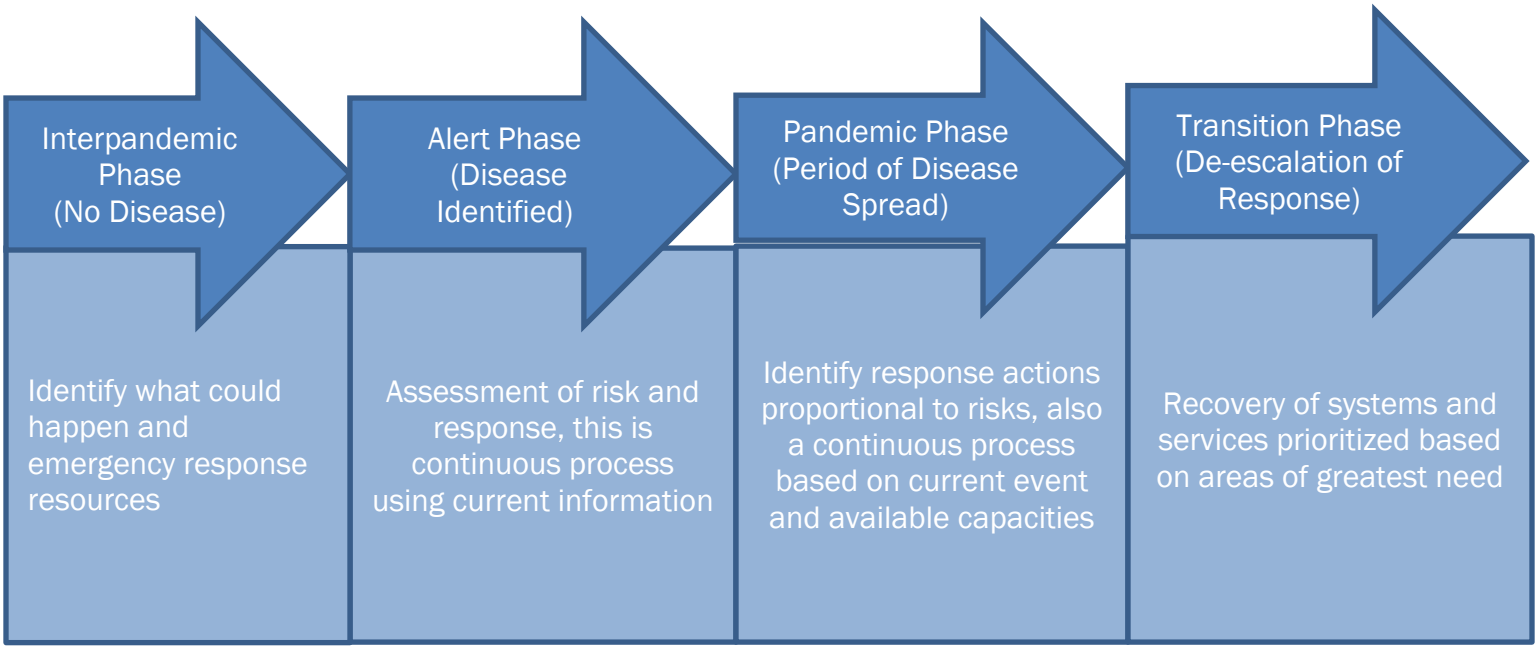
Employees

Employees are responsible for performing their job duties in a manner that is compliant with guidance established. During infectious disease events, employees are encouraged to report relevant health symptoms to either their appropriate line manager or, if they prefer, to their Human Resources or Health and Safety contacts so that proper control methods can be implemented.

RISK ASSESSMENT

The World Health Organization (WHO) has developed an interim guidance document that addresses the management of pandemic influenza events. As part of this guidance, WHO has identified pandemic phases that identify the continuum of pandemic disease in the context of preparedness, response and recovery. This guidance will be used to frame the company's risk based response to these types of events.

The following figure identifies broad categories of risk assessment actions addressed at each phase:



The US Centers for Disease Control (CDC) has adopted a classification system to address international travel when impacted by global health events. This system identifies levels of risk for the traveler and recommended preventive measures to take at each level. Established levels, definitions and with specific examples are listed below. Tetra Tech will rely on both the WHO and CDC guidance when responding to global health events.

Notice Level	Traveler Action	Risk to Traveler	Outbreak/Event Example
Level 1: Watch	Reminder to follow **usual** precautions for this destination	Usual baseline risk or slightly above baseline risk for destination and limited impact to the traveler	**Dengue in Panama-Outbreak Watch:** Because dengue is endemic to Panama, this notice most likely would signify that there is a slightly higher rate of dengue cases than predicted. Travelers are to follow "usual" insect precautions. **Olympics in London-Event Watch:** There may be possible health conditions in London that could impact travelers during the Olympics, such as measles. Travelers are to follow usual health precautions making sure they are up to date on their measles vaccine, follow traffic safety laws and use sunscreen
Level 2: Alert	Follow **enhanced** precautions for this destination	Increased risk in defined settings or associated with specific risk factors	**Yellow Fever in Brazil-Outbreak Alert:** Because an outbreak of yellow fever was found in areas of Brazil outside of the reported yellow fever risk areas, this would be a change in "usual" precautions. Travelers should follow "enhanced precautions" for that risk area by receiving the yellow fever vaccine.
Level 3:	Avoid all non-	High risk to	**SARS in Asia-Outbreak Warning:**

Notice Level	Traveler Action	Risk to Traveler	Outbreak/Event Example
Warning	essential travel to this destination	travelers	Because SARS spread quickly and had a high case fatality rate; a warning notice signifies there was a high chance a traveler could be infected. Travelers should not travel if possible. **Earthquake in Haiti-Event Warning:** The destination's infrastructure (sanitation, transportation, etc.) cannot support travelers at this time.

Tetra Tech will also refer to US OSHA established various risk levels to address occupational exposure to infectious disease during a pandemic or disease outbreak event. These risk levels are based on the whether job assignments require close proximity to people potentially infected and whether they are required to have repeated or extended contact with known or suspected sources such as coworkers, the general public, outpatients, school children or other such individuals.

Typical work tasks conducted by Tetra Tech personnel are considered office employees with minimal occupational contact with the general public and other coworkers and present a low risk of exposure. The majority of Tetra Tech employees fall under this risk category. The intent and scope of this plan addresses this target population and associated risk level. Control measures for employees supporting contracts where the risk of exposure may be classified at higher designated levels will be evaluated and addressed on a case by case basis.

In these cases, Tetra Tech's Medical Director or other medical resources will be consulted to provide additional prevention measures that may include medical screening including the use of antiviral agents for prophylaxis or treatment of infection if available.

WORK PRACTICE CONTROLS

Work practice controls are procedures that will reduce the duration, frequency or intensity of exposure. The following work practice controls shall be implemented at Tetra Tech work locations during pandemic flu or other infectious disease events:

- Provide resources to promote good personal hygiene. This includes tissues, hand soap, hand sanitizers, surgical masks, disinfectants and disposable towels so that employees can clean work surfaces.

- Communicate risk factors, signs and symptoms of illness and proper infection control behavior. Information specific to current health events will be developed and distributed to affected employees as needed.

- Employees with signs and symptoms of disease infection should remain at home until at least 24 hours after they are free of fever (100^{o}F or greater) without the use of fever reducing medications.

- Employees are encouraged to report signs and symptoms of infection to either their immediate supervisor or Human Resources or Health and Safety personnel.

- Sick employees may be asked to go home. Employees who appear to have symptoms upon arrival or become ill during the day should be promptly separated from other workers and advised to go home. When possible and if tolerated, employees with illness symptoms should be given a surgical mask to wear before they go home if they cannot be placed in an area away from others.

Employees exposed to a sick co-worker or who care for sick family members can report to work. However these employees should monitor their health every day. Before coming to work, employees should ask themselves:

- Do I have a fever?
- Do I have a sore throat?
- Am I coughing?
- Do my muscles ache?
- Do I feel ill?

If yes is answered to any of the above, employees should stay at home, notify their supervisor and seek medical guidance.

Employees who become ill and are at increased risk of complications from infectious diseases should call their health care provider for medical advice.

Encourage vaccinations if they are available.

In the event of health events with severe outcomes, Tetra Tech may elect to activate additional work practice control measures such as:

- Proactive screening of employee's health;
- Increase the number of days an employee may be required to stay at home when ill;
- Apply social distancing measures;
- Consider alternative work environments for employees at higher risk for complications of infection;
- Require travel approval to areas of high risk; and
- Restrict employee business travel to affected areas.

HUMAN RESOURCES POLICIES AND PROCEDURES

Impacted operating units shall maintain a current roster of affected employees, dependent names if applicable, current location, contact information and emergency contact information.

Notifications of potential exposure events will be sent by Human Resources to all affected employees when probable exposure events occur. At all times the confidentiality of the ill employee will be protected to the degree practical.

Tetra Tech's standard sick leave and disability policies will apply in these events. Tetra Tech reserves the right to modify these policies as necessary to be consistent with public health guidance. As an example, a doctor's note may not be required to return to work as doctor's offices and medical facilities may be overcrowded. Human Resources is responsible for identifying legally mandated actions that are required in regard to regulations that may apply to the general workforce, US examples - the Family and Medical Leave Act, the Americans with Disabilities Act, etc.

The Tetra Tech Employee Assistance Program is available to all benefits eligible personnel. Human Resources will encourage employees to utilize these services to manage additional stressors related to the pandemic or other similar events. These are likely to include distress related to personal and family illness, life disruption, loss of routine support systems and similar challenges.

CONTINUITY OF BUSINESS OPERATIONS

Managers responsible for an office or project should plan for continuity of operations if there is significant absenteeism from sick workers. Contingency plans must be put in place to ensure that client-related work and deliverables are not impacted by employee absenteeism. Plans must be developed to notify key contacts including both customers and suppliers in the event an outbreak has impacted the company's ability to perform contracted services. All employees are responsible for notifying their immediate supervisor or office manager if project work will be affected during their absence. These plans may include:

- Identify essential business functions;
- Cross train employees in essential business functions;
- Establish flexible worksites and work hours, telecommuting, staggered shifts;
- Enhance where possible communications and IT technology as needed to support employee telecommuting;
- Identify sources of replacement employees; and
- Identify critical elements within supply chains as applicable.

In the event the severity of a heath event escalates and key business operations are impacted, Tetra Tech may elect to activate its Business Continuity Plan (BCP) to maintain enterprise essential business functions. The decision to activate the BCP will be at the discretion of Tetra Tech's executive management. Tetra Tech's BCP is reviewed with key personnel and includes periodic testing of emergency communications procedures during table-top exercises.

COMMUNICATION METHODS

Tetra Tech has established several methods of communication to ensure that timely information is received and communicated as appropriate.

Tetra Tech has partnered with several resources such as International SOS to provide real time medical updates and alerts. Employees can elect to directly receive these alerts via their email address. The International Assistance wallet card lists the contact information needed to access these resources.

Up to date disease guidance and illness information and training material are available on the ISOS website and can be accessed using the Tetra Tech member number 11BCMA000238. Depending on current events and circumstances, information may also be posted on the My.TetraTech main landing page or included in the Health and Safety portion of the site.

For US based employees, Tetra Tech has partnered with the National Safety Council and participates in a real time health alert system that is directly linked to the US Centers for Disease Control. These alerts are distributed as applicable to H&S staff for publication or response.

Tetra Tech also relies on our medical surveillance provider to provide periodic updates and medical guidance on specific health care issues.

Employees will be provided information regarding the relevant components of this guidance, as well as local instructions through various methods such as safety meetings, newsletters, posters, and employee training, etc. Information and training will include illness prevention topics, how to avoid the spread of disease, and company policies concerning illness.

Email communication is the most direct method to reach the majority of Tetra Tech employees and will be utilized in the event critical information must be distributed. Tetra Tech has the ability to send All Tetra Tech or all unit email notifications. Tetra Tech also has the ability to send SMS text messages to traveling employees that may be at risk. Line managers are responsible for having alternative means of communications available to them in order to communicate with employees who do not readily have access to these systems.

TETRA TECH

OFFICE LOCATION: _____

COVID-19 RETURN TO OFFICE (RTO) AND SELF-SCREENING CHECKLIST/ACKNOWLEDGMENT

For your safety and the safety of your coworkers, this RTO checklist and acknowledgment has been developed to communicate employee obligations upon return to office or project work. This checklist must be reviewed and acknowledged by all staff before returning to the office or project work. If you have concerns or questions, please contact your Health & Safety (H&S) and Human Resources (HR) Representatives.

	ACTION	DETAILS
1.	You are requested to conduct daily temperature checks and symptom assessment prior to coming to the office. If you are sick, **stay home** until symptoms have resolved and it has been at least 10 days since symptoms appeared. Report any absence to your Supervisor. If you are experiencing any of the following symptoms: **fever (100.4+ or 38 C), dry cough, sore throat, headache, shortness of breath, pressure in chest, chills, body aches, loss of taste or smell or gastrointestinal problems,** seek immediate medical attention.	There are **NO EXCEPTIONS** to this rule. You must stay home if you are sick. Review the Self-Temperature Check guidance provided below. Any reports of illness should be reported by your Supervisor/PM to HR and H&S immediately. Do not share names of ill employees with anyone, except HR and H&S. Medical Information must be treated confidentially.
2.	If you have had exposure to a person diagnosed or showing symptoms of COVID-19, **stay home** and make the appropriate notifications. Instruction for returning to the office or project work will be provided by your supervisor and/or H&S.	You must stay home if you have had exposure to a person diagnosed or showing symptoms of COVID-19. Any reports of employee exposures should be reported by the Supervisor/PM to HR and H&S.
3.	If you must cough or sneeze, do so into a tissue (dispose immediately into a waste can) or shirt sleeve and immediately wash your hands with soap and water (preferred) or use hand sanitizer.	Public health guidelines indicate that the primary means of spreading COVID-19 is the inhalation or contact (mouth, nose, eyes) with respiratory droplets from a cough or sneeze.
4.	Wash your hands **before** returning to your work area, drinking or eating food, when entering break rooms or production rooms, using common area equipment and **after** using the restroom.	Public health guidelines strongly encourage diligence in handwashing as a chief means of slowing the spread of COVID-19. Maintain vigilance.
5.	Refrain from touching your face, mouth, nose, or rubbing your eyes. These are primary routes of COVID-19 infection.	Public health guidelines indicate that touching your face, nose, and mouth with hands that are not washed or sanitized may lead to COVID-19 infection.
6.	Maintain social distancing (at least 6 feet or 2 meters) and, when possible, avoid gathering in groups. Use IM, phone or Teams instead.	Public health guidelines require maintaining a 6-foot or 2-meter distance from others. Avoid physical contact and large gatherings.
7.	Always wear a face covering when in common areas, such as hallways, lobby, break room, and restrooms. You are not required to wear your face covering while in your private office or when in your cubicle, as long as cubicle social distancing is adequate or is designed with protective walls. Face coverings are to be washed routinely and appear clean.	Public health guidance states that face coverings may help stop the spread, but caution that social distancing, respiratory etiquette and regular handwashing with soap and water offer greater protection. **Use of a face covering should not replace the practice of social distancing.**
8.	Regularly clean equipment assigned to you. Allow to air dry for maximum effectiveness. Do not share your equipment.	This applies to computers, phones, tablets, cellphones and other work equipment.
9.	Regularly clean your personal work surfaces and high-contact surfaces. Allow to air dry for maximum effectiveness.	Public health guidance states that although surface contact is a less likely means of spreading COVID-19 infection, regular disinfection of work surfaces (desks/tables) and high-contact areas (e.g., doorknobs) may help minimize transmission.
10.	If applicable, keep interior office doors open to increase ventilation; however, be courteous before entering an occupied office. Wait to be invited in or clarify your purpose in advance of entry.	For indoor office work, public health agency guidelines indicate that increased air circulation reduces the likelihood of infection and transmission of COVID-19.

SELF-TEMPERATURE CHECK GUIDANCE

Employees are requested to perform daily self-temperature checks. Regardless of your temperature, if you are not feeling well or have any symptoms of COVID-19, including mild cold symptoms, you should not come to work.

Per the US Centers for Disease Control, before you take your temperature:

1. Wait 30 minutes after eating, drinking, or exercising.

2. Wait at least 6 hours after taking medicines that can lower your temperature such as acetaminophen, paracetamol, ibuprofen or aspirin.

    - **Temperature readings below 99°F / 37.2°C with no symptoms:** you may go to the office.
    - **Temperature readings at or above 100.4°F / 38.0°C:** do not come to the office and let your Supervisor and HR Representative know. Even if you have no other symptoms, seek medical attention as appropriate.
    - **Temperature readings between 99°F / 37.2°C and 100.3°F / 37.9°C with no symptoms:** wait 60 minutes and retake your temperature at home.

3. Process for retaking your temperature:

    - If your second temperature reading is less than 99.0°F / 37.2°C, and you have no symptoms, you may go to the office.
    - If your second temperature reading is higher than your first check, you cannot come to the office.
    - If your second temperature reading is the same as the first, wait another hour and retake your temperature.
    - If your third temperature check is less than 99.0°F / 37.2°C, you may go to the office.
    - If your third temperature check is the same or elevated, you cannot come to the office.

ACKNOWLEDGMENT

I have been informed of the COVID-19 office guidelines addressed above and associated office RTO procedures and acknowledge my understanding of these expectations. My signature below and/or presence in the office serves as my agreement to abide by these guidelines and affirmation that I will not come to the office when experiencing any signs or symptoms of illness or after having potentially been exposed to an individual diagnosed with or showing symptoms of COVID-19. If any circumstances change after the date of my signature below, I will immediately notify my Supervisor and refrain from returning to the office until I receive further instructions.

EMPLOYEE NAME (PRINTED)	EMPLOYEE SIGNATURE	DATE

TETRA TECH

Tetra Tech Response Guidelines When Suspected or Positive COVID-19 Cases Are Reported in the Work Environment

Tetra Tech COVID-19 guidance for employees is posted on the COVID-19 Health & Safety Information and Guidance page on the My Tetra Tech intranet. This document provides additional internal guidance on the role and coordinated actions of Operations Leadership, Supervisors, Human Resources (HR), and Health & Safety (H&S) when staff reports community-related exposure cases, potential workplace close contact exposures, or positive COVID-19 cases that may affect others in the office or at the project site. In all cases, close coordination with H&S, HR, and the locally appointed lead for the impacted location is critical. In cases where the employee is in the field, the Project Manager or point of contact for the client must be notified.

Response Actions to COVID-19 Reports at the Worksite

1.0 Employee Instructions

Upon reports of either close contact events or positive cases of COVID-19, the Supervisor shall instruct the employee to go home, stay away from others, and await further direction. The Supervisor must then contact the local Operations Lead, HR, and H&S representatives. The Supervisor also will coordinate with the local office lead to restrict access to the employee's work area until proper cleaning and disinfection can be completed.

Employees should be directed to contact their personal physician for reported non-work-related cases or close contact events. The Supervisor or H&S can engage one of Tetra Tech's third-party medical triage providers (CORE or ISOS) to provide employee consult for work-related events. Operating Units (OUs) are responsible for costs related to managing the COVID-19 responses if CORE or ISOS programs are activated.

In consultation with the employee's supervisor, HR, and H&S, a target return to work date will be identified and communicated (Section 2 Return to Worksite Guidance). HR will evaluate eligibility for COVID-19-related benefits that may include COVID-19-related leave, company sick leave, state-mandated leave, workers compensation, or supplemental sick leave.

The employee will also be instructed to follow one of these options:

- Work from home during quarantine or isolation
- Receive additional paid time-off benefits as applicable
- Take Time Off With Pay (TOWP) during quarantine or isolation (if the employee cannot work from home)
- Take time off without pay during quarantine or isolation

2.0 Return-to-Worksite Guidance

In cases where employees must quarantine or isolate due to close contact events or illness, the following protocols provide return-to-worksite guidance.

Time-based Return to Worksite: Standard Protocol (Appendix A)

Appendix A details Tetra Tech's standard return-to-worksite protocol after COVID-19 close contact events that impact the worksite or confirmed COVID-19 cases. Note, any client or local public health agency return-to-worksite protocols take precedence. In the absence of these requirements, a time-based strategy as presented by the U.S. Centers for Disease Control (CDC) will be followed.

Test-based Return to Worksite: Discretionary Protocol (Appendix B)

Appendix B details the COVID-19 test-based return-to-worksite strategy that can be used as an alternative approach with local Operations Leadership approval. HR or H&S will work with local leadership to present a test-based return-to-worksite strategy as a personal option if one is viable. For this option, test expenses and time waiting for results are the responsibility of the employee. Note, any client or local public health agency return-to-worksite protocols take precedence.

Employees are to remain at home while waiting for test results. If the employee returns to the worksite prior to 14 days from their last exposure or date of positive test result, they must wear a face covering at all times while in the workplace and perform regular disinfection of their workstation until 14 days have passed.

If the employee who self-reported COVID-19 like symptoms meets all test-based return-to-worksite criteria before 10 days have passed, then close contact-defined staff who remain asymptomatic can discontinue quarantine and return to the workplace.

Fully vaccinated employees with an exposure to someone with suspected or confirmed COVID-19 are not required to quarantine if they meet all the following criteria:

- Are fully vaccinated (i.e., ≥2 weeks following receipt of the second dose in a 2-dose series, or ≥2 weeks following receipt of one dose of a single-dose vaccine)
- Are within 3 months following receipt of the last dose in the series
- Have remained asymptomatic since the current COVID-19 exposure

HR will request a letter from the employee that attests to meeting vaccination return-to-worksite protocol. Note, any client or local public health agency vaccination return-to-worksite protocols take precedence. Employees who do not meet all 3 of the above criteria should continue to follow current quarantine return-to-worksite guidance after exposure to someone with suspected or confirmed COVID-19.

3.0 Cleaning and Disinfection

The local Operations Leader, H&S, or office H&S administrators will confirm access has been restricted to the impacted area and arrange for work area disinfection. Depending on the office, they may need to work with Building Management personnel. Follow office cleaning and disinfection guidelines included in our COVID-19 Office Cleaning and Disinfection Guidance.

4.0 Investigation and Reporting

HR Representatives must report the case in the COVID-19 Tetra Linx app immediately and update as needed.

The Office Leader, H&S, or HR begins an investigation using the COVID-19 Event Documentation Form. The completed form remains with HR, if the close contact or positive COVID-19 case is not work related.

If the close contact or positive COVID-19 case is determined to be work-related, HR and H&S will work with the local designee to begin an investigation using COVID-19 Event Documentation Form **and** the H&S COVID-19 Investigation Supplement Form and report the event in TOTAL. Both completed forms will be uploaded into the event report in TOTAL.

HR and H&S are to determine any additional actions and coordinate with the local designee (e.g., client, other mandatory public health reporting or offering COVID-19 testing if required).

For work-related cases of COVID-19, the OU is to report a claim to appropriate Tetra Tech Workers Compensation (WC) provider. HR, H&S, or OU WC contacts are to communicate medical treatment locations where Tetra Tech can direct employee care if applicable. In these cases, return to work will be managed by WC treating physician.

The Company will determine if the case meets the enterprise illness reporting and recordability standard and should be included in Tetra Tech Reported Injury and Illness Metrics.

5.0 Notifications

If the employee with suspected or confirmed COVID-19 was at the worksite during their infectious period, the local Operations Lead, HR, or H&S is to provide notice to any individual(s) who have met the definition of close contact with the employee.

If the employee may have interacted with client workers, the client may need to be informed. H&S and HR will coordinate with the Project Manager assigned to the client.

The local Operations Lead, HR, or H&S will provide general notice to others in the work location who may have heard about the event and be concerned for their health. HR will use the COVID-19 Notification Template for this purpose.

If HR or H&S receives test information that is confirmed positive, HR and H&S are to determine any additional actions and coordinate with the local designee (e.g., client, other mandatory public health reporting or testing requirements, benefits). Notification to the operations or project designee will be made.

Corporate HR and H&S are to be notified when a Tetra Tech worksite identifies multiple work related COVID-19 cases. This is defined as three or more COVID-19 cases in the workplace within a 14-day period or when the workplace is identified by a local health department as the location of a COVID-19 outbreak.

Multiple work-related COVID-19 reported cases must epidemiologically-linked in the workplace, are from different households, and are not identified as close contacts of each other in any other case investigation. This includes employees with identifiable connections to each other such as sharing a defined physical space e.g. in an office, facility section or work-related gathering, indicating a higher likelihood of linked spread of disease than sporadic community incidence.

6.0 Travel Guidance

Traveling during the COVID-19 pandemic can lead to exposure to COVID-19. Many people who have the virus do not have symptoms (asymptomatic) but can be contagious and spread the virus to others. Thus, those who have traveled may pose a risk to others for 14 days after potential exposure to the virus. Follow national or regional health orders as applicable. The Company reserves the right to require staff to quarantine from home or opt for a return-to-worksite test-based strategy as detailed in Appendix B.

Appendices

Appendix A: Time-based Return-to-Worksite Standard Protocol

Appendix B: Test-based Return-to-Worksite Discretionary Protocol

Definitions

Asymptomatic **–** Not showing any symptoms (signs of disease or illness). Some individuals without any symptoms have and can spread COVID-19.

Symptomatic **–** When a person shows signs of illness. The most common symptoms of COVID-19 infection include cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, sore throat, and new loss of taste or smell.

Suspect Case – Someone who exhibits symptoms of COVID-19 infection but is not yet confirmed positive through testing.

Positive Case **–** Someone tested and confirmed to have COVID-19.

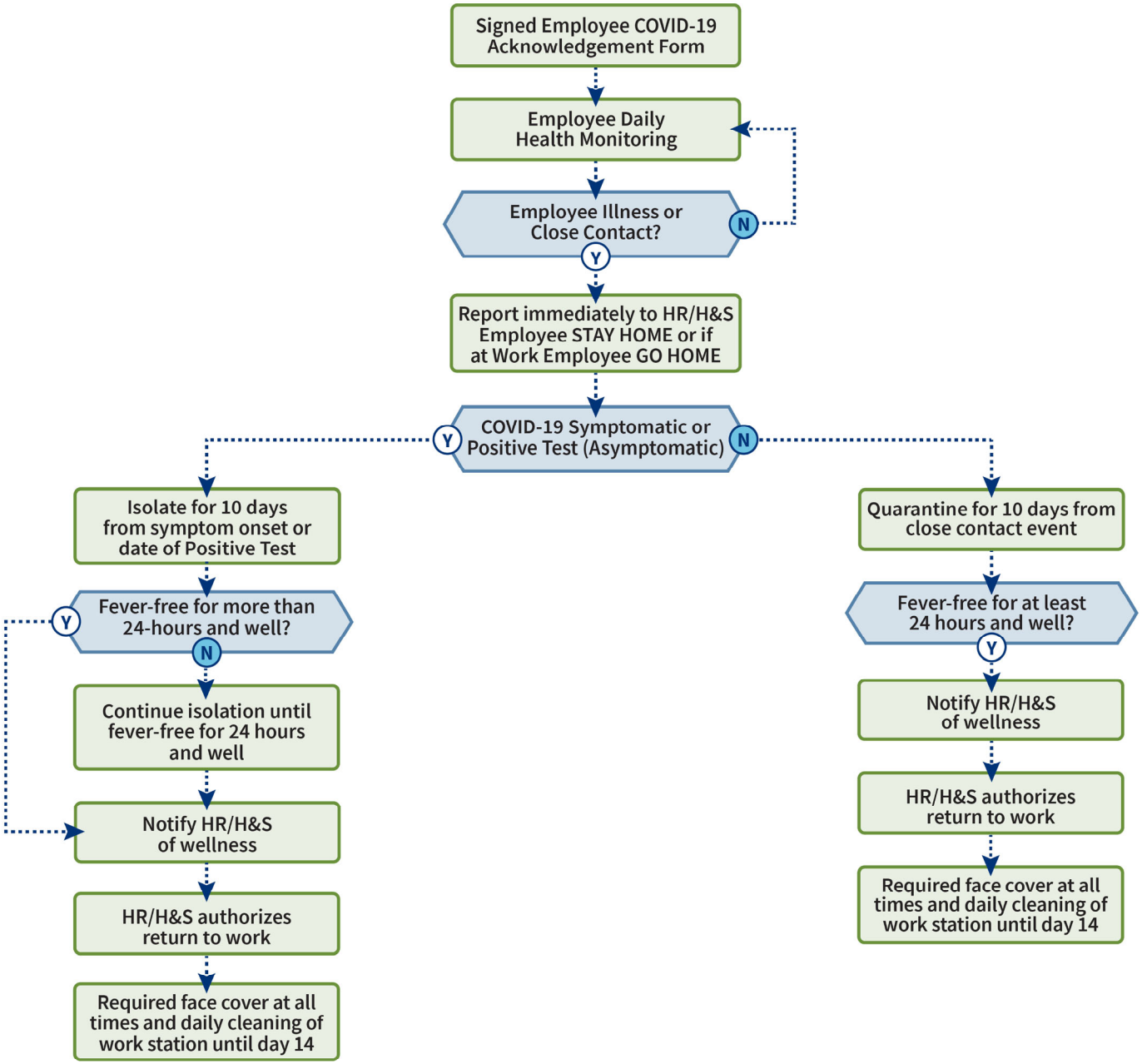
Community-related Exposure **–** The spread of an illness within a particular location or event that is not associated with the work environment.

Close Contact **–** Someone who was within 6 feet of an infected person for a total of 15 minutes or more over a 24-hour period starting from 2 days before illness onset or 2 days prior to positive test. This definition applies regardless if a face covering is worn or the close contact event occurred outdoors.

Quarantine – The separation and movement restriction of people who were exposed to a contagious disease to see if they become sick.

Isolation – The separation of people who have a contagious disease from people who are not sick.

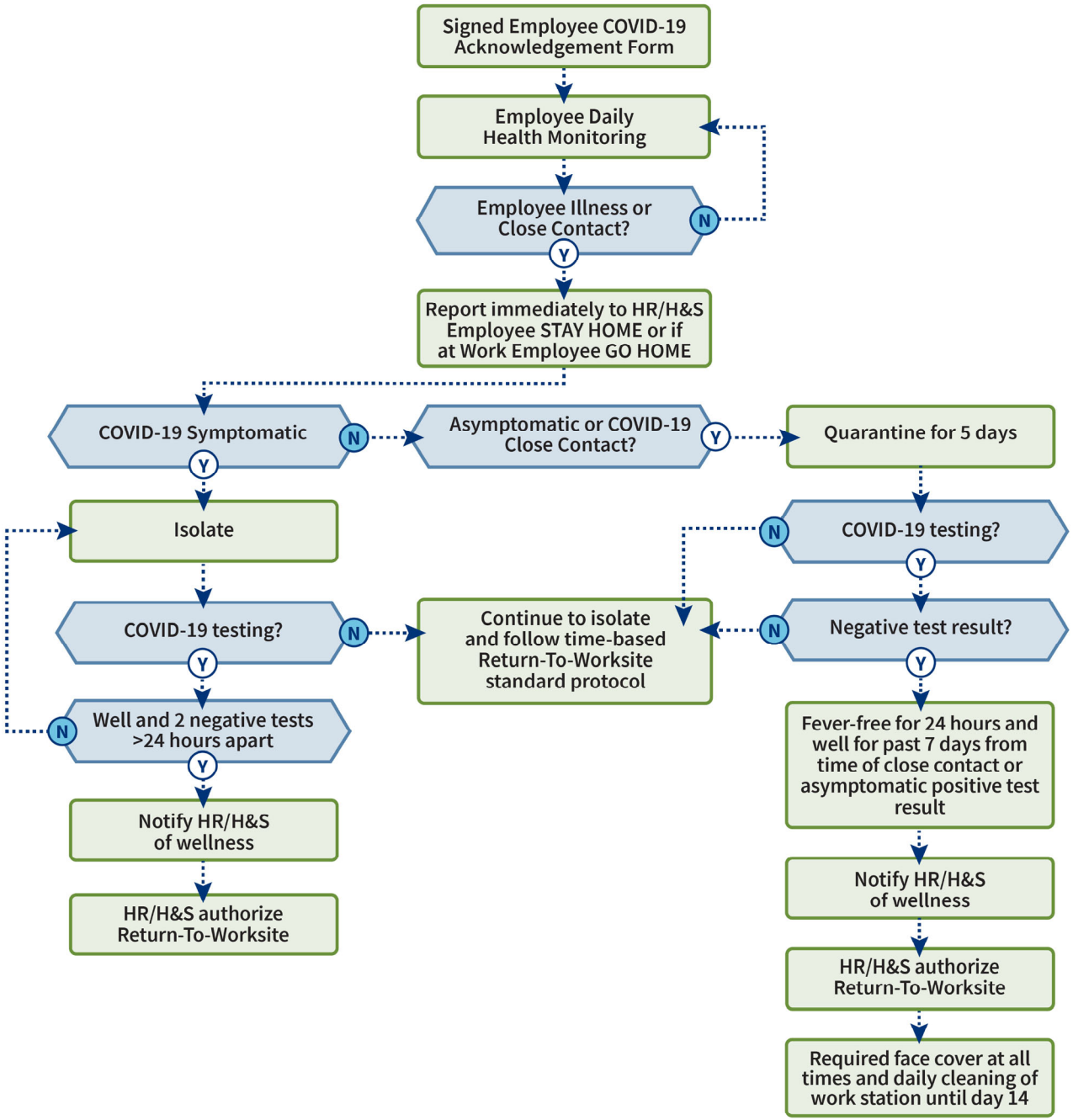
Appendix A: Time-based Return-to-Worksite Standard Protocol



Definitions

Asymptomatic	Not showing any symptoms (signs of disease or illness). Some individuals without any symptoms still have and can spread the coronavirus.
Symptomatic	When a person shows signs of illness. The most common symptoms of Covid-19 include: cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, sore throat, and new loss of taste or smell.
Suspect Case	Someone that exhibits symptoms of COVID-19 infection but not yet confirmed positive through testing.
Positive Case	Someone tested and confirmed to have COVID-19.
Community Related Exposure	The spread of illness within a particular location or event that is not associated with the work environment.
Close Contact	Someone who was within 6 feet of an infected person for a total of 15 minutes or more over a 24 hour period starting from 2 days before illness onset or 2 days prior to positive test.
Quarantine	The separation and movement restriction of people who were exposed to a contagious disease to see if they become sick.
Isolation	Separation of sick people with a contagious disease from people who are not sick.

Appendix B: Test-based Return-To-Worksite Discretionary Protocol



Definitions

Asymptomatic	Not showing any symptoms (signs of disease or illness). Some individuals without any symptoms still have and can spread the coronavirus.
Symptomatic	When a person shows signs of illness. The most common symptoms of Covid-19 include: cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, sore throat, and new loss of taste or smell.
Suspect Case	Someone that exhibits symptoms of COVID-19 infection but not yet confirmed positive through testing.
Positive Case	Someone tested and confirmed to have COVID-19.
Community Related Exposure	The spread of illness within a particular location or event that is not associated with the work environment.
Close Contact	Someone who was within 6 feet of an infected person for a total of 15 minutes or more over a 24 hour period starting from 2 days before illness onset or 2 days prior to positive test.
Quarantine	The separation and movement restriction of people who were exposed to a contagious disease to see if they become sick.
Isolation	Separation of sick people with a contagious disease from people who are not sick.

TETRA TECH

LOCATION: _____

OPERATING UNIT: _____

DOCUMENTING COVID-19 INCIDENT IN A TETRA TECH WORK ENVIRONMENT:

Below is a list of items for investigation purposes, data recording and collection when employees who have been in Tetra Tech offices or project sites notify the company that they have tested positive for COVID-19 or have had close contact with someone who tested positive for COVID-19. Close contact is defined as anyone who was within 6 feet of an infected person for at least 15 minutes or more over a 24-hour period starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to test specimen collection) until the time the patient was isolated. **Complete this form and provide signed form and supporting documentation for the listed items to Human Resources**.

	ITEM	RESPONSE
1.	Employee Name	
2.	Date of test result/confirmation of COVID-19 positive or occurrence of "close contact"	
3.	If applicable, note the date symptoms first occurred	
4.	Date employee was last in the office or project site	
5.	Date the employee was instructed of any office or project work restrictions	
6.	Provide listing of specific work areas visited by employee starting from 48 hours before either the date of last visit, the date when close contact occurred or if applicable when symptoms were first noted.	Complete on page 2
7.	Provide listing of employees, visitors or subcontractors that were contacted because they were in close proximity or came into close contact with the reporting employee starting from 48 hours before the employee had close contact with a positive COVID-19 person, or began feeling sick, until the time the employee was removed from the workplace.	Complete on page 2
8.	Note actions taken to disinfect work area: 1. Date office/work area closed 2. Date of disinfection 3. List cleaning method 4. Describe work area cleaned 5. Name of cleaning service provider, if used or if client or building management is responsible for disinfecting work area	1. 2. 3. 4. 5.
9.	Date office or specified work area reopened	
10.	Date reporting employee was cleared for return to office or project site and H&S basis for clearance: Testing Protocol? Symptom-free period protocol?	

Work areas visited by reporting employee (e.g. building floors, break rooms, bathroom, copy room, galley, conference rooms, etc.)	Did Area Need Disinfection (Yes/No)	Date Area Disinfected

Listing of individuals to contact because they were in close proximity or came into close contact with the reporting employee. (If any listed employees report a COVID-19 positive test result, complete a separate form for this employee's report).

Affected Individual Name	Date Contacted	Actions Directed for Affected Individual	If listed employee reported COVID-19 positive, record date of test result/confirmation

EMPLOYEE COMPLETING THIS FORM (PRINTED)	EMPLOYEE SIGNATURE	DATE

TETRA TECH

LOCATION: _____

TOTAL Report Number: _____

HR TETRA LINX Report Number: _____

SUSPECTED WORK-RELATED COVID-19 INVESTGATION SUPPLEMENT FORM

Instructions: H&S Representatives (HSR) in collaboration with Human Resources (HR) or their designee are to investigate suspected work related **positive COVID-19** cases or when staff reports **close contact* with someone who tested positive for COVID-19** either in a Tetra Tech office or project location. It is the responsibility of the Operating Unit HSR and HR to also collaborate with Operations management and Tetra Tech medical to determine the appropriate response and corrective actions.

In accordance with Tetra Tech's Incident Reporting and Investigation Program, work related illnesses are to be logged in TOTAL where detailed event information will be collected. The purpose of this document is to offer additional investigation guidance specific to potential work related COVID-19 events. This form is to be used in conjunction with the COVID-19 Post Document Report. TOTAL is designed to maintain employee confidentiality, any work related positive COVID-19 case will be marked as a privacy case on company injury and illness summary records. A separate TOTAL report for each affected individual must be entered into the system.

The completed Suspected Work Related COVID-19 Investigation Supplement Form must be uploaded and attached to each TOTAL event report.

When entering COVID-19 investigation events in TOTAL, select injury/illness for suspected work related positive COVID 19 cases and the near miss classification for close contact events.

**Close contact is defined as anyone who was within 6 feet of an infected person for a total of 15 minutes or more over a 24-hour period starting from 2 days before illness onset (or for asymptomatic workers, 2 days prior to positive test specimen collection) until the time the infected person was isolated. This definition applies regardless if a face covering is worn or if the close contact occurred outdoors.*

Affected Individual Health Status	
Name:	Unit, Office or Project:
What is the current status of the affected individual?	☐ Lab Confirmed Case ☐ Close Contact Case
If the employee has not yet been tested, have steps been taken to be tested?	☐ Yes ☐ No ☐ Unknown
Is Tetra Tech required by either local public health agency and/or the client to provide COVID-19 testing for work related close contact or outbreak events?	☐ Yes ☐ No If yes, note testing arrangements:
Date of reported positive COVID-19 test or "close contact" event.	

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

What is the current health status of the affected individual?	☐ Symptomatic ☐ Asymptomatic ☐ Unknown
Did the affected individual monitor their temperature every day prior to coming to work?	☐ Yes ☐ No ☐ Unknown
Did the affected individual start to feel ill while at work?	☐ Yes ☐ No ☐ Unknown ☐ NA If yes, did the individual properly report symptoms and immediately get sent home? If no, explain what occurred:
Where is the affected individual currently?	☐ Isolation/Quarantine at home ☐ Isolation/Quarantine outside the home ☐ Other:
Exposure	
Was the affected individual in close contact with a person showing symptoms of illness?	☐ Yes ☐ No ☐ Unknown
Did the affected individual travel via public transportation (plane, train, bus, etc.) either domestically or internationally within the last 14 days?	☐ Yes ☐ No If yes, select type of travel: ☐ Personal Travel ☐ Work-Related Travel Location and Dates of Travel:
If yes, was a self-quarantine order required upon arriving or returning from travel?	☐ Yes ☐ No If yes, select which leg of travel: ☐ Upon Arrival to Destination ☐ Upon Return to Domicile Provide Details of Self Quarantine Health Order(s):
If yes, did the affected individual comply with the self-quarantine order(s)?	☐ Yes ☐ No
List other places outside of work where the affected individual may have been exposed, include community or home-based exposures.	

This form contains information relating to employee health and must be used in a manner that protects the confidentiality of the employee to the extent possible while the information is being used for occupational safety and health purposes.

Is the location where the exposure occurred experiencing high rates of community transmission?	☐ Yes ☐ No
Work Environment	
Did the affected individual review and sign the Tetra Tech Return to Office acknowledgement prior to this incident?	☐ Yes ☐ No ☐ Unknown
Were protective measures for COVID-19 in place in or at the work site?	☐ Yes ☐ No ☐ Unknown If yes, describe:
Did the affected individual receive training or materials covering the COVID-19 work site requirements?	☐ Yes ☐ No ☐ Unknown If yes, provide date:
Was the affected individual following face cover requirements put in place for the work environment?	☐ Yes ☐ No ☐ Unknown If no, please describe why the affected individual was not wearing the required face cover while at that location.
Were others in the work environment following face cover requirements put in place for the work environment?	☐ Yes ☐ No ☐ Unknown If no, please describe why others were not wearing the required face cover at that location.
Confirm the Post Documentation Report has been completed by HR or their designee to: ☐ Identify and notify other individuals the affected individual may have contacted in the work environment. ☐ Identify locations where the individual visited in the work environment. ☐ Identify work area/equipment to be disinfected and cleaning method employed.	Review and upload completed Post Event Documentation Report onto TOTAL

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<table>
<tr><td>How long and what timeframes was the affected individual in a Tetra Tech work environment? Starting from 48 hours before either the date of last visit, the date when close contact occurred or if applicable, when symptoms were first noted.</td><td>
<table>
<tr><th>Location</th><th>Date</th><th>Time Present</th></tr>
<tr><td></td><td></td><td>From:
Until:</td></tr>
<tr><td></td><td></td><td>From:
Until:</td></tr>
<tr><td></td><td></td><td>From:
Until:</td></tr>
<tr><td></td><td></td><td>From:
Until:</td></tr>
<tr><td></td><td></td><td>From:
Until:</td></tr>
</table>
</td></tr>
<tr><td>If available, use site plan to trace the individual’s path of travel and activity within the work environment.</td><td>Upload into TOTAL</td></tr>
<tr><th colspan="2">Notifications</th></tr>
<tr><td>If a confirmed COVID-19 case is potentially work related, check with local public health authority to determine if notification is required. If required, provide who received the case notification and the date.</td><td>Date Called:
Person Providing Notification:
Public Health Contact:
Public Health Instructions:

☐ NA</td></tr>
<tr><td>Has the affected individual been contacted by local public health authorities?</td><td>☐ Yes ☐ No
If yes, Date:</td></tr>
<tr><td>If yes, was company contact information provided to public health authorities?</td><td>☐ Yes ☐ No</td></tr>
<tr><td>Has general notice been given to others in the work location that have likely heard about the event and may be concerned for their health?</td><td>☐ Yes ☐ No
Date:</td></tr>
<tr><td>If the suspected exposure occurred on a project site, has the PM been notified?</td><td>☐ Yes ☐ No ☐ Unknown
PM Name:
Date:</td></tr>
<tr><td>If the exposure occurred on a project site, has the client primary contact been notified?</td><td>☐ Yes ☐ No ☐ Unknown
Client Contact Name:

Date:</td></tr>
</table>

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Return-to-Worksite	
Confirm with local public health authorities if Public Health Clearance is required for return to work.	☐ Yes ☐ No Public Health Instructions:
Are there any client or location specific Return-to-worksite protocols in place for close contact or positive asymptomatic cases?	☐ Yes ☐ No ☐ NA Client or Location Required Instructions:
Return-to-worksite protocol for COVID-19 close contact or asymptomatic cases Individuals that have been potentially exposed to a positive COVID-19 (close contact case) or positive asymptomatic cases can return to work after 10 days without testing and if no symptoms have been reported during daily monitoring during this time.	***Client and/or Local Public Health Return to Work Protocols take precedence. In the absence of these requirements, the enterprise protocol must be followed. Any deviations from this protocol must be approved by Corporate H&S and HR.*** ***If the employee returns to the worksite prior to 14 days from their last exposure or date of positive test result, they must wear a face covering at all times while in the workplace and perform regular disinfection of their workstation until 14 days have passed.***
Are there any client or location specific return-to-worksite protocols in place for positive symptomatic COVID-19 cases?	☐ Yes ☐ No ☐ NA Client or Location Required Instructions:
Return-to-worksite protocol for COVID-19 positive symptomatic cases Note the affected individual will not be allowed to return to work until **all three** of these elements are satisfied. • No fever for at least 24 hours without the use of medicine that reduces fevers, and • Other symptoms, coughing and shortness of breath have improved and • At least 10 days have passed since symptoms first appeared	***Client and/or Local Public Health Return to Work Protocols take precedence. In the absence of these requirements, the enterprise protocol must be followed. Any deviations from this protocol must be approved by Corporate H&S and HR.*** ***If the employee returns to the worksite prior to 14 days from their last exposure or date of positive test result, they must wear a face covering at all times while in the workplace and perform regular disinfection of their workstation until 14 days have passed.***

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Return-to-worksite protocol for fully vaccinated employees A fully vaccinated employee with an exposure to someone with suspected or confirmed COVID-19 case will not be required to quarantine if all the following criteria are met: • Fully vaccinated (i.e., ≥2 weeks following receipt of the second dose in a 2-dose series, or ≥2 weeks following receipt of one dose of a single-dose vaccine) • Within 3 months following receipt of the last dose in the series • Have remained asymptomatic since the current COVID-19 exposure	***Client and/or Local Public Health Return to Work Protocols take precedence. In the absence of these requirements, the enterprise protocol must be followed. Any deviations from this protocol must be approved by Corporate H&S and HR.*** ***HR to request a letter from the employee that attests to meeting vaccination RTW protocol.***
Additional Return-to-worksite options listed in Tetra Tech COVID-19 Workplace Response Guidelines	
Date the affected individual was advised on plan to return to the worksite	
Is the affected individual returning to work in a Tetra Tech office, on a client / contractor / project site, or telework?	☐ Tetra Tech office: specify location and operating unit: ☐ Client / Contractor / Project site: specify project number, Client / Contractor name ☐ Telework

HSR COMPLETING THIS FORM (PRINTED)	SIGNATURE	DATE

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